The training of rural school teachers

by M. B. Lourenço Filho, L. A. Creedy,
E. A. Pires, Isidro Castillo

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Primary Teacher Training (two volumes)
Primary Teachers' Salaries

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by M. B. Lourenço Filho, L. A. Creedy
E. A. Pires, Isidro Castillo

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PREFACE

The present volume contains four national studies on rural teacher training, written by competent local experts, fully conversant with the subject and the problems involved. It is published by Unesco as a part of a general programme for furthering the cause of universal compulsory education and is also intended to form one of the working papers of the Sixteenth International Conference on Public Education convened jointly by the International Bureau of Education and Unesco (Geneva, July 1953). The conference is to discuss various aspects of the training and status of primary school teachers and in doing so may no doubt consider the need for special training of rural teachers.

Apart from being a contribution to the conference—whose recommendations will help further the larger cause championed by Unesco—the present volume may be of wider use to educators and administrators who are concerned with the place of rural teachers in the educational system and appropriate methods of training them. The studies are descriptive, keeping in mind the reader who is unfamiliar with the country, but they also contain opinions of the authors as individuals, and are therefore to some extent interpretative.

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CONTENTS

INTRODUCTION 9

PART I. RURAL TEACHER TRAINING IN BRAZIL,
by M. B. Lourenço Filho

CHAPTER I. General Considerations 15

CHAPTER II. Training of Primary School Teachers in General 20

CHAPTER III. The Juazeiro do Norte Experiment . . . 26

CHAPTER IV. The Fazenda do Rosário Experiment . . 34

CONCLUSION 49

BIBLIOGRAPHY 53

PART II. RURAL TEACHER TRAINING IN THE GOLD COAST,
by L. A. Creedy

CHAPTER I. Teacher Training Policy in the Gold Coast . 57

CHAPTER II. Methodist Training College 60

Situation, buildings and grounds; Organization and finance; The students; The staff; Aims and principles of the course; Curriculum; School practice.

CONCLUSION 71

BIBLIOGRAPHY 72

PART III. RURAL TEACHER TRAINING IN INDIA,
by E. A. Pires

CHAPTER I. Aims and Objectives 75
The role of the teacher *vis-à-vis* the pupil; The role of the teacher *vis-à-vis* the community; A summing-up of objectives.

CHAPTER II. Present Organization 80
Institutions of the traditional type; Basic education.

APPENDIXES 108

BIBLIOGRAPHY 128

PART IV. RURAL TEACHER TRAINING IN MEXICO,
by Isidro Castillo

CHAPTER I. General Historical Outline 131
Events leading up to the present situation; The rural school; The need for teachers and the problem of their training; Origin and development of the rural teachers' training colleges.

CHAPTER II. The Mexe Rural Teachers' Training College 143
Location; Budget and staff; Objects; Selection of candidates; Administration of the college; Scheme of studies; Organization of work; Methods; Boarding arrangements; Medical service; Social action; Improvement of the professional qualifications of teachers in service; Graduation; Graduated students.

CONCLUSION 160

BIBLIOGRAPHY 163

INTRODUCTION

In the present democratic age the idea of education for all is no longer an issue. It is generally accepted that the development of democracy will become a sham if the ordinary citizen does not learn to practise democracy, that economic development will be retarded if the average farmer and worker remain tied to conservative methods and ignorant of modern improvements, and that health standards will remain poor if the common man does not know how to keep clean, ward off disease and lead a sanitary life. It is also an admitted fact that with illiteracy goes a low level of economic development and consequent widespread poverty, and that poverty leads to malnutrition and disease which sap the vitality of men and reduce their productive power.

With the realization that education is basic to human happiness, social accomplishment and national progress and development, there is a growing demand in all countries to banish illiteracy, and most states have accepted the responsibility of providing free compulsory education for children as the most effective means of drying up illiteracy from its very source.

Compulsory education, however, is beset with problems, financial, social, administrative, linguistic, religious and educational.

Among the educational problems, the most vital is that of the teacher. Not only must teachers be trained in sufficient numbers to man the schools established to afford education to all children, but they must be of sufficiently high quality to ensure the success and effectiveness of the education imparted in the schools and its adaptability to the needs of the community.

As regards the supply of teachers, many countries with limited financial resources, but which are anxious to put as many children in school as possible, tend to open schools and to employ untrained or poorly trained teachers. Not only does the training of teachers cost money, but a trained teacher requires a higher salary. The problem for these countries presents itself in this way: Should they utilize their meagre financial resources on the provision of schools at the cost of quality, or should they give due attention to adequate training of teachers at the cost of the extension of schooling—or, again,

should they operate on both fronts simultaneously, thus slowing down the expansion of schooling?

The problem of the curriculum is closely bound to that of the education of teachers. Knowledge imparted in too academic a manner is likely to be inert rather than functional and results in frequent retardation and premature leaving of school. Unrealistic school courses not closely connected with the atmosphere and needs of children, their parents and the community have a similar detrimental effect—more so in rural areas where the standard of living is low and the opportunity for the development of community activities limited. In the light of this, should the curriculum of primary schools in urban and rural areas be different or should it be uniform throughout the country? Should the teachers for the rural schools be trained specially to assimilate a rural background and to imbibe the ideals of social work and activity methods of teaching, or should there be a uniform system of teacher training with slight adaptation to rural conditions?

It is to try to focus the attention of educators on the vital problems stated above, and to provide possible answers to some of them, that Unesco is publishing this descriptive account of rural teacher training in Brazil, the Gold Coast, India and Mexico. The authors for the four studies have performed their work admirably: they give a clear picture of the background which necessitated the introduction of rural teacher training, the various phases of the experiments carried out and the future trend of teacher training in those countries.

There seem to be many similar preoccupations behind all the experiments: activity methods which provide work experience and emphasize co-operative action between pupils are seen to be best suited for schools intended to help community development; teachers occupy a pivotal position in any educational system, so that the success and failure of schools, and particularly rural schools, depend largely on them; teachers for rural schools have to be suitably trained in institutions having a proper rural setting and concentrating on a study of rural environment and social service.

There are also many dissimilarities in the scope and organization of rural teacher training. This is but natural, owing to different social, economic and political conditions prevailing in the four countries. These dissimilarities illustrate the different possible approaches to the problem, and the results obtained from the experiments.

The four studies clearly show that the basic issue whether there should or should not be special training for rural school teachers is far from being settled. There are supporters of both views. Those believing that the rural school has a role to play in raising the standard of living of the villages and should turn itself into a 'community

school', that the teacher should become a leader in the community and should be prepared for his leadership by learning about practical health, agriculture, handicrafts, recreation, co-operatives, the social survey technique, etc., and that in addition he should be ready to conduct literacy and fundamental education work among village adults—these argue that the job of the rural teacher is sufficiently different to warrant a special kind of training. Moreover, living conditions in the rural areas in most underdeveloped countries being of a very low standard, a city-born teacher is not fitted for rural life and will not only usually prove a failure, but will do all he can to get away. Prospective rural school teachers, it is argued therefore, should be drawn from rural youth who already have a rural background and are accustomed to live in the rural environment. Since educational facilities in the rural areas rarely go beyond the primary schools, it becomes necessary to lower the conditions of admission to rural training courses—a fact which necessarily argues a different kind of training.

Objectors to the differentiation between rural and urban school curricula, and consequently to a similar differentiation in teacher training, argue that such a policy is detrimental to national unity because it tends to produce two standards of intellectual attainment. They point out that a different rural school curriculum heavily charged with practical work would tend to block the progress of the rural child who wants to enter secondary or other forms of post-primary education, while rural parents often object to having a special rural programme which might endanger the progress of their children in further education. Finally, it is asked, why should the standard of training of rural teachers be lower than that of urban teachers?

The issue is therefore still open, with a number of countries vacillating between the two policies. Industrialized countries, where good roads exist, where rural communities are advanced, and where even agriculture has become a form of industry, may feel that the gap is so reduced between town and country that there is no more justification for differentiated rural school curricula and differentiated rural teacher training, except in minor adaptations. Countries with an impoverished countryside where farmers live a destitute life of disease and poverty may feel, on the other hand, that their rural schools and consequently their rural teachers must be dedicated to improving the life of the village communities, and thus may decide on a special rural teacher training programme. In some predominantly rural countries indeed, towns may be no more than large rural centres, and both primary school programmes and teacher training may possess a uniform rural bias. It is in the countries which are in the middle of their evolution to industrialization that the problem

is felt most acutely. Thus the type of decision to be arrived at may largely be a function of the stage reached in the transition from an agricultural to an industrial economy.

Another problem is the isolation of the rural teacher—not only the physical isolation where he may find himself at a long distance from a big centre with poor roads or no roads at all, but also the discomfort of poor and unhealthy housing, the lack of medical care and of medicines, a lack which may endanger his life or that of his family, and even sometimes the lack of a regular supply of such things as meat and vegetables, not to mention books, magazines, newspapers and the broadening contacts with the outside world. Attempts have been made to grant additional allowances to rural teachers placed in remote districts, and to provide them with housing accommodation. Good as this is, it solves only half the problem. Teachers therefore tend to avoid rural service.

This creates the further problem of the supply of rural teachers, which is one of the major factors in the slow progress of compulsory education in rural areas. Not only are teachers with a city background averse to serving in the villages, but even teachers coming from rural areas, but educated in teachers' colleges situated in urban centres, have been known to be unwilling to go back to the villages. This seems to argue for teachers who are of rural stock and are trained in the rural environment itself. The problem is even more complicated in the case of women teachers. In many parts of South Asia, the Middle East and Africa, parents are loath to let their daughters go alone to outlying rural villages. This is one reason why the primary education of girls lags behind the education of boys in these regions, sometimes considerably.

Enough has been said to show the intimate connexion between the quantitative expansion of primary school facilities in rural areas, the type of education to be offered by the rural school, and the provision of training facilities in adequate measure and of a quality that would meet the need of the rural areas. Most of the regions of the world where there is a large percentage of illiteracy and inadequate provision of schooling are predominantly rural. It follows, therefore, that the question of supply and training of rural teachers is of paramount importance to the spread of compulsory education. The discussion of this problem in all its aspects by educators and educational administrators from various parts of the world may make a significant contribution towards the further progress of free and compulsory education.

PART I

RURAL TEACHER TRAINING IN BRAZIL

by M. B. Lourenço Filho

CHAPTER I

GENERAL CONSIDERATIONS

Considerable effort has recently been devoted in Brazil to the training of teaching staff for rural schools. There had been a certain amount of pioneer work on these lines even before the Primary Education Law of January 1946, but it was unquestionably as a result of this federal measure that the movement expanded and took more definite shape. In 1951 there were 114 regional teachers' training courses in operation in addition to the ordinary teachers' training schools, 444 in number. While in the majority of cases the organization and functioning of these courses are not yet perfect, none the less some of them are doing notable work. Of these, two have been selected for detailed description—the Rural Teachers' Training School of Juazeiro Do Morte, in the state of Ceará, which is the oldest, having started work in 1934, and the education, training and extension services of the Fazenda do Rosário in Betim county, state of Minas Gerais, begun in 1948.

Before giving an account of these two institutions, it will be well to consider the general position of teacher training in the country as a whole, since, in Brazil, the specialized training of rural teachers is only one facet of the broader and graver problem of the quality and quantity of teachers in general.

Brazil was one of the first countries in the Americas to establish publicly-maintained teachers' training schools—the Niteroi School in the state of Rio de Janeiro dates from 1834. Nevertheless, there is an enormous shortage of man-power to meet the ever growing needs of education. A recent nation-wide survey shows that 48 per cent of the teachers serving in primary schools had received no training for their work. The gravity of the situation indicated by this figure varies in degree from region to region. In the south with its denser population and ampler resources and with high-speed industrialization in full swing, there are states in which the proportion of teachers with no background of professional training is as low as 10 per cent; in the public primary schools of one of them, São Paulo, there are no longer any 'lay instructors', as unqualified teachers are called in Brazil. However, in some of the northern, north-eastern and west central states the proportion verges on 70 to 80 per cent. Not only in

very many rural primary schools, but quite frequently in schools in small cities and towns there is not a single properly trained teacher.

This state of affairs is prejudicial to the soundness of school organization, hence to the system's scholastic and social effectiveness, and its causes require examination. Two of them are of special significance.

The first is the dispersion of population. Brazil has an area of over 8½ million sq. km. and a population, according to the national census of 1950, of 52 millions giving an overall average density of 6 per sq. km. The actual distribution of population is, however, far from uniform: in two-thirds of the country—i.e. throughout the northern and west central territories—density is below 1 per sq. km. In the south, the most thickly populated area, the density is 21 per sq. km., while it is 15 in the eastern, and 13 in the north-eastern region.

Population dispersal is increasing, promoted by the primitive methods of exploitation in use in most of the country (intensive agriculture, pastoralism and extraction industries in the plains and forests). The rural population lives scattered in isolated huts or tiny settlements with long distances between them. Centres of more than 5,000 inhabitants accounted for no more than a fifth of Brazil's total population, according to the 1940 census, and that of 1950 revealed little change. About 10 per cent of 'district seats' (the headquarter 'towns' of administrative divisions of the 'counties' and technically urban as opposed to rural areas) had no more than 100 inhabitants.[1]

It is therefore apparent that there are large parts of the country where a school system of the ordinary type is impracticable. Functionally, a school is a community centre and similarly a school system only acquires real permanence when it in turn represents a functional link between the schools of a number of communities for purposes of organization, administration and staffing arrangements, including the training of staff.

To this adverse factor must be added others having their origin in the country's cultural traditions and political and administrative arrangements. During the three centuries that Brazil was a Portuguese colony, the economy was based on slave labour (Indian initially and thereafter negro until 1888), which was not conducive to cultural aspirations on the part of the people, save for small privileged sections. The local communities did not develop any spirit of initiative in the matter but waited on the instructions of the regional or cen-

[1] Brazil consists of 20 states, 5 territories and a federal district. For administrative purposes, each state or territory is divided into 'counties' and each 'county' into districts. The county seat, whatever its size, ranks as a city and district seats as towns. From the legal point of view the rural districts are the areas lying outside the cities and towns.

tral government—as most of them still do. Since 1889 Brazil has been a federal republic; from 1822 till then it was a unitary constitutional empire. Both régimes left educational matters to the regional governments (provincial under the empire and state under the republic), whose boundaries are dictated by tradition and have no logical basis in equivalence of area, population or resources: taxation per head has a range between state and state of 1 to 150. Further, in the distribution of the revenue collected, no allowance is made for the charges borne by local (county) or regional (state) administrations. The former receive a bare 10 per cent and the latter under 40 per cent of the total revenue, whereas the central government collects over 50 per cent.

The training of primary school teachers has always been a state commitment, and the poverty of many states serves to explain the profound regional differences in educational effort, number of schools, types of premises, system of payment of teachers and their recruitment and training and thus the inadequate development of education in the rural areas.

According to the 1940 census, the overall proportion of illiteracy in the 10-year old and higher age groups was 57 per cent. Regionally the proportion ranged from 42 per cent in the south, through 56 per cent in the northern states, 58 per cent in the eastern zone and 67 per cent in the west central states, to a maximum of 72 per cent in the north-eastern region. The full data from the 1950 census have not yet been published, but it seems that there has been an appreciable reduction in illiteracy. Even so, the fall has occurred chiefly in the cities. In Rio Grande do Sul, one of the more advanced states educationally, the illiteracy rate is 25 per cent in the cities and towns and 50 per cent in the rural districts, whereas Maranhão, one of the worse situated states, has 41 per cent of illiteracy in the towns and 85 per cent in the countryside. Both censuses show that the rural districts accounted for more than two-thirds of the total population. Yet the number of pupils registered in the country areas does not amount to more than half of the total receiving primary education. The disproportion is thus vast.

Even in the states best provided with schools, difficulty has been experienced in staffing them with teachers who have been through a training school, particularly in the case of schools in the rural areas. The explanation is simple: numbers of training schools have hitherto been inadequate; their regional distribution is unsatisfactory, some states having a school in the capital only; the majority (69 per cent) are maintained by private bodies with ineffective public supervision and tuition on a fee-paying basis. These training schools, which are located in cities, have advanced courses of instruction of seven (or a minimum of six) years duration from the

conclusion of the primary education. They are attended almost exclusively by women.

The ordinary teachers' training schools are satisfactory up to a point for the provision of teachers for city schools; however, neither the quantity, nor, in certain particulars, the quality of their product is up to the requirements of the country schools. In small states with slender resources, the deficiency is most marked in the number of teachers; the qualitative shortcomings are striking in wealthier states. The fact is that even when rural schools enjoy the services of qualified teachers who have attended a reputable training school, they do not achieve the scholastic and social results desired. They are rarely full to capacity, even though there may be large numbers of children of school age within the perimeter of 2–3 km. radius within which attendance is nominally compulsory. If children register at all, their attendance is irregular and even of those who do attend regularly the great majority are satisfied with a single year's schooling.[1]

This poor result, in the view of a group of education officials, was primarily a reflection of bad work by teachers and the cure recommended was specific rural teachers' training based on a more thorough grounding in agricultural techniques. It was more particularly after 1930 that the new viewpoint began to gain ground, as a result of large-scale migrations from the country to the town and, in the case of the north-eastern states with their periodic droughts, from both town and country to other parts of the republic.

In 1929 a meeting of county administrators in one of the states affected, Ceará, came to the conclusion that what was needed was the transformation of the rural school so as to make it an agency for 'attaching the peasant to the soil'. Pursuing the same line of thought, the Ministry of Agriculture, through its Agricultural Promotion Service, in 1932 began to foster mutual assistance agreements between the regional agricultural inspectorates and the school networks of a number of states; the effect was to strengthen the conviction that primary school teachers should have training in agricultural techniques. Again, the federal government's efforts for the improvement of health standards in the country since 1922 had led it to the conclusion that the measures put into operation would only be fully successful when backed up by a wider extension of education among the people. Thus the idea of training rural teachers in agricultural techniques was combined with that of giving them more instruction in hygiene and prophylaxis, the two

[1] The average duration of studies—i.e. total period of school attendance—of Brazilian children is among the lowest in the world—one year and four months. The relative percentages of registrations for the five years of the course are as follows: 1st year, 55 per cent; 2nd year, 24 per cent; 3rd year, 14 per cent; 4th year, 6 per cent; 5th year, 1 per cent.

together issuing, in the state of Ceará, in the pilot experiment of Juazeiro do Norte, and in a number of other states in a propaganda campaign for what came to be called the ruralization of education.[1] Meanwhile another school of thought was beginning to take shape, under the leadership of a number of university professors and social thinkers. In this group's view, the problem of rural education was more complex. The proposition that the peasant could be 'attached to the soil' through the elementary schools, by teaching, or claiming to teach, children elementary agricultural techniques and health precautions was—they argued—untenable. However true it was that every primary school must be adapted to the environment in which it worked, and however desirable that teachers be trained with the same consideration in mind, no attempt should be made to give any form of technical training proper in these schools. A satisfactory solution of the problem would call for measures of much wider scope—reform of the system of land tenure; expansion not merely of the services for the promotion of agriculture but of others for the provision of credit and the protection of the producer; improvement of communications and welfare services; adolescent and adult illiterates' education services; rural missions using modern techniques of mass information such as the cinema; and lastly improvement of school premises, building of houses for teachers and organization of teachers' training on a regional basis with special reference to the general requirements of life in each environment. In broad terms this second group was advocating a programme very similar to what Unesco has since defined as coming under the head of fundamental education.[2]

The views of both groups have contributed to the progress of social thought in Brazil. There are several points of contact between them, as can be seen from the Proceedings of the First National Education Conference, convened in Rio de Janeiro by the Ministry of Education in 1941, and of the Seventh Brazilian Education Congress held at Goiania in 1942, under the aegis of the Brazilian Education Association, to discuss fundamental primary education with special reference to country areas. A point made at both meetings was that more assistance for primary education was required from the federal government in view of the wide variations in regional financial resources throughout the country.

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[1] The idea had also been put forward as early as the beginning of the century by such social thinkers as Silvio Romero and Alberto Torres. It was given wider currency by Belizario Pena, the health expert, the educator, Sud Menucci and M. A. Teixeira de Freitas, the statistician, among others.

[2] The group includes Professors Fernando de Azevedo and A. Almeida Jnr. of the University of São Paulo, Abgar Renault of the University of Minas Gerais and A. Carneiro Leão and M. B. Laurenço Filho of the University of Brazil.

CHAPTER II

TRAINING OF PRIMARY SCHOOL TEACHERS IN GENERAL

Primary education and the training of primary school teachers are traditionally the responsibility of the regional governments and although politicians had long been advocating schemes for the sharing of these commitments by the central government, no practical steps were taken to this end till after the revolution of 1930, and even then the pace was slow.

The last months of 1930 saw the creation of the Ministry of Education and Health, and in 1934 the new Constitution laid down that the federal government was to decide on a national education plan, covering all levels and branches of education and providing for supplementary federal aid where local resources or initiative were lacking. In consequence of the *coup d'état* of 1937 no concrete plan was ever drawn up, but in 1938 the National Institute of Educational Research was founded and its investigations led to the establishment, in 1942, of the National Primary Education Fund, the making of grants from which, mainly for use in rural areas, began in 1946.[1] The Constitution of September of that year, still in force, incorporated among its basic principles the notions of a national fund and of supplementary federal action.

Even before this, in January 1946, the federal government had promulgated two important laws on matters never before the subject of legislation, the Organic Laws of Primary Education and of Teacher Training. These are comprehensive measures, in which a statement of general principles is followed by clauses covering a variety of aspects of the organization of primary education and teacher training respectively. The Primary Education Law stresses the need for adapting school work to regional conditions and prescribes adequate planning for the equitable distribution of schools in the light of the numbers and distribution of the juvenile

[1] The National Fund's resources were allocated 70 per cent for the building of primary schools in rural areas and of regional or rural teachers' training schools, 25 per cent to the Education Campaign for adolescent and adult illiterates, conducted mainly in country areas, and 5 per cent to Extension courses for primary school teachers and administrators. The 1946–50 building programme for rural schools and teachers' quarters provided for the grant-aided construction of 6,160 units, of which rather over 4,000 were actually built.

population. It makes a special point of educational extension for illiterate adolescents and adults. It makes receipt of federal aid conditional on the planning of teacher training by states in accordance with the numbers and geographical distribution of the primary schools to be staffed; lastly, it obliges agricultural estates and business enterprises to provide certain facilities for the installation and running of schools and for the accommodation of their teachers.

The preamble to the Teachers' Training Law states explicitly: 'The co-ordination by an Organic Law of Primary Education services logically requires a similar degree of co-ordination of the training arrangements under which the staff necessary for that branch of education is produced.' After a reference to the research on the subject carried out by the National Institute of Educational Studies, the preamble continues: 'Two stages are deemed necessary in teachers' training for primary education, in view of the disparities in wealth and culture between different regions and even between specific areas within a region. The first of these stages is the equivalent of the initial cycle of secondary education, and the four-year course will qualify students as primary school instructors. The second stage, corresponding to the second cycle of secondary studies, will be three years in length dating from the completion of the first stage (or alternatively, of high school studies) and will qualify those concerned as primary school teachers. This arrangement, laid down by law for all branches of secondary education, is adopted to end the position, obtaining until now, whereby teacher training has been the exception to the general scheme of studies in force in the country.'[1]

The preamble goes on: 'In this connexion it should be remarked that awareness of the problem presented by the differentiation necessary in the training of teachers has led some educators to advocate the opening of rural teachers' training schools. Far from rejecting this view, the project improves on it by authorizing the introduction of regional teachers' training courses, of flexible structure variable according to the zones they are to serve, with the emphasis squarely on agriculture, or extraction industries, or even on maritime activities, as appropriate. A conclusion on similar lines was among those reached by the Ninth Brazilian Education Congress, lately convened in Rio de Janeiro by the Brazilian Education Association.'

The detail of the two cycles of training for primary school staff prescribed by the Organic Law is as follows:

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[1] The general structure of secondary education in Brazil is today identical in all branches—general or commercial, technical and agricultural. In each case there are two cycles of studies: the basic four years in length, followed by a three-year cycle of pre-university or technical studies, as the case may be.

First cycle (Primary School Instructors Training Course). A four-year course of a definitely 'regional' character. Students must be not less than 13 years of age and in possession of certificates covering the full course of primary studies (five years). The content and emphasis of these regional courses are to vary according as the principal local activity is agriculture, stock raising, mining or the extraction of vegetable products.

Second cycle (Primary School Teachers Training Course). Three years' additional study from completion of the Instructors Course or the first cycle of general secondary education. No minimum age is laid down for the acceptance of candidates and in appropriate cases the course can be taken intensively in two years.

The compulsory subjects to be taken in the first cycle are the following:

First year: Portuguese; mathematics; geography of Brazil; natural science; drawing and calligraphy; manual work and domestic economy; choral singing and physical education.

Second year: Portuguese; mathematics; geography of Brazil; natural science; drawing and calligraphy; manual work and economic activities of the region; choral singing and physical education.

Third year: Portuguese; mathematics; elements of human anatomy and physiology; world history; drawing; manual work and economic activities of the region; choral singing; physical education, recreation and games.

Fourth year: Portuguese; psychology and pedagogics; elements of hygiene; history of Brazil; theory and practice of teaching; drawing; choral singing; physical education; recreation and games.

The key subject of the whole course is manual work and economic activities of the region. It must comprise manual training affording a knowledge of the production techniques of the region, and observation and research exercises on the life of the local population, their customs and the prospects of the school's influence improving matters. The law of each state may provide for the addition of further subjects, indicating, in each such case, the regional relevance of the course added.

The Organic Law lays it down that programmes of instruction must be simple, clear and flexible. In applying them attention is to be paid to the following points: (a) the teaching methods adopted are to be active; (b) the spirit and manner of the teaching are to provide a moral and civic education for the pupils; (c) the methodology classes are to deal with the objects, organization and recommended approaches and procedures of each discipline; (d) practical instruction is to be given in the form of 'sitting in' at classes and actual teaching practice; (e) the final year's classes in drawing, manual training, singing, and physical education, recreation and

games will also comprise instruction in the methodology of each for primary school purposes, with special reference to requirements in the region. Religious instruction may be introduced, but as an optional subject, and attendance may not be made compulsory. As a complementary activity teachers' training establishments are to promote the formation and development of students' organizations designed to create a spirit of co-operation and social service among the teachers of the future.

All teachers' training establishments are to maintain attached primary schools for teaching demonstrations and practice. In the case of regional training courses, at least two single-teacher schools are to be selected for the same purpose.

The second cycle of the teachers' training course, for candidates who have completed instructor's training or the high school course (first cycle of secondary education), comprises the following subjects:

First year: Portuguese; human anatomy and physiology; physics and chemistry; drawing and applied arts; music and singing; physical education, recreation and games.

Second year: Biology and psychology applied to education; hygiene and health education; methodology of primary education; drawing and applied arts; music and singing: physical education, recreation and games.

Third year: Psychology and sociology applied to education; elements of the history and philosophy of education; hygiene and care of children; methodology and practice of primary education; drawing and applied arts; music and singing; physical education, recreation and games.

In 1951 the number of teachers' training establishments in operation in Brazil was 558, of which 444 were teachers' training schools and 114 regional training courses; their distribution over the states, territories and the federal district is given in Table 1. The total number of students on their books was 35,000 and there were about 10,000 qualified teachers in the year in question.

TABLE 1. DISTRIBUTION OF TEACHERS' TRAINING SCHOOLS AND REGIONAL TRAINING COURSES BY STATES AND TERRITORIES AND IN THE FEDERAL DISTRICT, 1951

	Regional courses	Training schools	Total
Alagoas	2	4	6
Amazonas	6	4	10
Bahia	2	12	14
Ceará	12	12	24
Espírito Santo	1	13	14
Goiás	6	16	22
Maranhão	1	1	2
Mato Grosso	–	3	3
Minas Gerais	9	124	133
Pará	2	4	6
Paraíba	8	8	16
Paraná	8	16	24
Pernambuco	9	11	20
Piauí	1	4	5
Rio Grande do Norte	—	2	2
Rio Grande do Sul	2	27	29
Rio de Janeiro	—	20	20
Santa Catarina	38	12	50
São Paulo	—	135	135
Sergipe	2	2	4
Acre Territory	2	2	4
Amapá Territory	1	—	1
Guaporé Territory	1	1	2
Rio Branco Territory	1	—	1
Federal District	—	11	11
TOTAL	114	444	558

The most cursory comparison of the numbers given above with the statistics of area and population of the several states and territories shows that in the majority of them the numbers of teachers' training establishments are insufficient. For instance, the state of Maranhão, with an area of 300,000 sq. km. and a population of a million and a half, has two training establishments only. Mato Grosso with over 1,200,000 sq. km. and 1,300,000 inhabitants, has only three training schools, located in the state capital. Against this, states well supplied with training schools are São Paulo with 135 for an area of 260,000 sq. km. and 8 million people, Minas Gerais with 133, and the tiny state of Santa Catarina, barely 95,000 sq. km. in area, with 50, of which 38 are regional courses well distributed over its territory. The last mentioned is also the state in which the proportion between the numbers on the books of town and country primary schools respectively are most satisfactory.

The federal policy for the development of regional teachers' training applied since 1947 has been to provide states and territories with aid for school building and enlargement or rebuilding; so far 16 states and 4 territories have benefited, 51 schools have been built and a further 19 enlarged or reconstructed at a total cost of 120 million cruzeiros.[1] Federal encouragement has also been given to the establishment of regional training and refresher courses for rural teachers, whether or not graduates of a teachers' training school.

Thus both aspects of the problem have had attention—the training of new teachers, with variations to suit local conditions; and refresher courses for teachers already in appointments to bring their methods into line with the new educational policy.

[1] At the official rate of exchange, 18.5 cruzeiros = U.S. $1.

CHAPTER III

THE JUAZEIRO DO NORTE EXPERIMENT

Brazil's first experiment in the specialized training of teaching staff for rural schools was initiated in 1934, in the city of Juazeiro do Norte, state of Ceará.[1]

The idea originated with the then State Director-General of Education, Dr. J. Moreira de Sonza. As early as 1931, Dr. de Sonza had submitted a paper on the organization of teacher training to the Fourth National Education Congress, suggesting that it should be federally organized—i.e. regulated by the central government—and that the training course should include instruction in rural hygiene, agricultural practice, and the operation of rural industries. In his own words what was wanted was 'to use the primary school teacher to create in the hearts of the masses a national conscience in matters of health and agriculture, on which Brazil's greatness depends'. Later he suggested to the state government of Ceará that instruction in agriculture and rural industries should be introduced in all teachers' training schools and in 1933 proposed the creation of a rural teachers' training school, to be set up in one of the counties of the interior.

No government resources being available, Dr. Moreira de Sonza pressed the state authorities for the issue of an Order permitting the carrying out of the project by some private body with a little state assistance.

This was finally agreed to. Through the efforts of a devoted woman teacher, Amalia Xavier de Oliveira, a private association was formed in Juazeiro do Norte, which volunteered to instal and maintain the projected rural teachers' training school, providing premises, land and teaching material for a start. An agreement was concluded between the association and the state government, and work began in

[1] The state of Ceará is in the north-eastern region and has a semi-arid climate, suffering from periodic droughts. It lies between parallels 2° 45′ and 7° 52′ south and meridians 40° and 40° 20′ west, with a total area of 153,000 sq. km. and a population of 2,750,000. Juazeiro do Norte county is 600 km. inland, in a fertile zone in the south of the state. Of its 60,000 inhabitants, 42,000 live in the city, an exceptional state of affairs both in the region and in the country as a whole. The explanation is that Juazeiro is a religious centre. It was the home of the famous Father Cicero Romão Batista, celebrated as a thaumaturge, whose life and activities were dealt with by the present writer in his book *Juazeiro do Padre Cicero*.

1934 with a primary and an intermediate course, the latter introductory to the teachers' training course proper. The first principal was Dr. Plácido Castelo, who was shortly succeeded by Madame Xavier de Oliveira, who still holds the appointment.

In 1935, the first academic year of the new school, there were no more than five students. The objects prescribed for the school in its regulations, which date from the previous year were: (a) to turn out rural primary school teachers capable of providing sound agricultural training for the young and of introducing them to measures for the protection of health and the promotion of progress in the countryside; (b) through suitable training of teachers, to help rural primary schools to develop into economic and occupational training centres; (c) through the teachers to inculcate in the population land and health consciousness, with an appreciation of the value of thrift and economy, as the condition of personal and community well-being; (d) to awaken in the farmers and stock breeders of the future, through the primary school teachers, a realization of the importance of their class and of its duty, organized and free of any outside influence, to collaborate with other classes towards the greatness and good government of the country.

With objects so ambitious, the projected rural teachers' training course obviously required in prospective students a higher standard of education than the primary, so a two-year intermediate course was introduced covering the following subjects:

First year: Mathematics; geography; French; music, drawing; physical education; manual work and agricultural practice.

Second year: Portuguese; mathematics; history of Brazil; French; music; physical education; drawing; manual work and agricultural practice.

On successful completion of this course, students proceeded to the rural teachers' training course proper, which lasted three years and comprised the following subjects:

First year: Portuguese; mathematics; elements of world and Brazilian physical geography; history of Brazil; human geography; drawing; manual work; music; physical education.

Second year: Portuguese; mathematics; physiography of Brazil; human geography; physical and natural science; drawing and manual work; music; physical education.

Third year: health education; psychology and methodology; agriculture and rural industries; outline of economics; drawing and manual work; music; physical education.

It will be noted that instruction in agricultural practices begins in the intermediate course and the regulations prescribe that two periods of field work per week are to be intercalated in the classroom syllabuses throughout the three years of the teachers' training

course. The whole of the teaching is to be 'essentially practical and utilitarian in nature, and directed throughout to the better development and exploitation of the wealth of the soil and the better use of human labour' (article 3 of the regulations). Physical exercises and singing instruction take place daily and are to include folk songs and dances, drama and recreational activities. The school is to maintain educational and agricultural museums, and natural science, chemistry and rural hygiene laboratories. The time-table provides for a minimum of three hours a week for each discipline in the course.

The regulations go on to direct that, wherever practicable, lessons are to be given in the school's exhibition bays and museums or on the ground in the school fields, or in factories or offices, so that the teaching is kept really practical. Active methods are to be adopted, whereby the pupil learns by doing and, in all the work of the school, the interests and occupations of the region are to be kept to the fore. The demonstration lessons to be given for the prospective teachers in the attached primary school are to conform to modern teaching techniques, with special emphasis on 'centres of interest' and 'projects'. Auxiliary institutions prescribed are a farmers' club to be run with the co-operation of the students, a parent-teachers' club, a school fund, a co-operative and a health club.

Initially the club had only an adapted house and a small piece of land. In 1937 new premises were built, still in the city limits, but with 18 hectares of fertile irrigable land. The new building, for which the governors secured a grant-in-aid from the federal government, has five classrooms, and accommodation for secretariat and library, educational and agricultural museums, a medical and dental service and a steward's office. Finally there are a covered 'yard' for physical education and a sizeable assembly hall for social meetings. The school has always operated on a non-boarding basis.

The teaching staff was recruited in Juazeiro City from doctors, agricultural engineers, lawyers and primary school teachers, qualified at the teachers' training school of the state capital. In 1952 the staff consisted of 12 on the teaching side, 6 on the administrative and a variable number of agricultural labourers employed on contract. In the same year, maintenance costs were 91,000 cruzeiros, of which approximately half was absorbed by the salaries of the teaching staff. Fees paid by students (including those taking the primary and intermediate courses) amounted to a little more than 64,000 cruzeiros and the sale of agricultural products brought in 3,000. There was thus a deficit of about 23,000 cruzeiros to be covered by county and state subventions.

Teaching material, rudimentary at the beginning, has gradually improved. For the classroom subjects there are maps, wall diagrams, and demonstration apparatus similar to that supplied in secondary

schools for the teaching of natural science. For instruction in practical agriculture the report for 1948 lists the following equipment as available in that year: 20 dibbles or small hoes, 12 hoes, 10 rakes, 8 transplanters, 6 scarifiers, 1 harrow, 1 drill-harrow, 1 pair of pruning-shears, 1 insecticide spray, 15 watering cans, a maize-husker and a machine for destroying ant-hills.

Livestock varies from year to year; in 1948 the figure was low, being down to 2 pigs, 6 goats, 20 chickens and a few beehives.

Even with this modest equipment, pratical instruction in agricultural work and the care of small livestock has always been kept up. In the intermediate course the branches covered are horticulture and pigeon-breeding, and in the training course proper, apple-growing, poultry-farming, pig-keeping, bee-keeping and sericulture. In the figures of farm produce, of which part is sold, no distinction is made in the reports between the proportions produced by student and hired labour respectively.

From a careful study of the reports for sucessive years, there would appear to have been some degree of change in the type of teaching given, with a certain shift of emphasis from the practical to the academic. Thus in 1944 the structure of the course was expanded by the introduction of algebra and English in the first year, and of algebra, natural history and history of civilization in the second year of the teachers' training course proper. The new disciplines were quite out of keeping with the school's original aims and the probability is that they were introduced with an eye to city pupils desirous of a course of studies nearer to that of general secondary education.

It is probable, too, that the same consideration influenced the drawing up of syllabuses which are conceived in academic terms rather than in terms of the practical problems which trainees will meet in their future work. A glance at the human geography syllabus for the second year of teachers' training illustrates this point. It comprises: definition of human geography, its object and subdivisions; man and environment; ways of life; degree of civilization; world population; population movements and the spread of man over the earth; nationality and its elements; the legal systems of the nations; society and the class structure; the state and its various forms; the machinery of state; varieties of economic activity; food-crops; agriculture and arable soil; hunting, fishing and mineral prospecting; means of communication and transport; Brazil, its population, races and language; Brazil, religion, form of government and position among the nations; agriculture in Brazil; transport; Brazilian civilization; the federal capital, its political, economic and cultural significance.

It is the same with the health education syllabus, which contains

the following items: importance of hygiene, its objects and subdivisions; definition of normal health and the factors affecting it; disease, hereditary, endemic and epidemic; parasites, commensalism and symbiosis; micro-parasites; worms harmful to the human organism; infections and toxins; diet and its importance in health; diet and its functions; the influence of the soil on health; soil-parasites; the natural factors in the cleansing of the soil; nitrification; water in nature and its importance in health; natural and artificial water-purifying; importance of the air in health; atmospheric pressure and air in confined spaces; hygiene of the home; evolution of human dwellings; orientation and insolation; natural and artificial illumination; collection of human waste matter; sewers, earth latrines and urinals; personal hygiene; the skin and mucous membranes and their functions; hygiene of mouth, tongue and teeth; care of children; immediate post-natal care of babies; elements of school hygiene; etiology and prophylaxis of the chief endemic diseases of the region.

The syllabus of economic instruction is similarly ambitious, comprising:

1. Basic notions. The economic problem and human needs; laws deriving from the economic problem; definition of economics, its objects and importance.
2. The economics of consumption. True economy; its necessity; providence and thrift, improvidence and extravagance.
3. The economics of production. Intelligence, a factor in productivity; work and pay; capital, interest and credit; nature and the earth's yield; business and profits; the machine.
4. Rural economics. Definition of rural economy; choice of country property; crop-growing and stock-raising; ways of exploiting agricultural property; artificial irrigation and mechanized ploughing; rotation of crops and its economic importance; extensive and intensive cultivation; farming capital; agricultural credit; the agricultural holding as a business; farming accounts.

For agriculture, taught in the third year of the teachers' training course, the syllabus is a follows: object and importance of agriculture; climate and agriculture; soil and subsoil; physical, chemical and biological properties of the soil; chief types of soil; the role of water in plant life; plant nutrition; clearing of land; felling, burning-off, uprooting; tools and machinery used for these operations; preparation of the soil; ploughing, harrowing and rolling; study of seed-grains from the agricultural point of view; sowing; organic and chemical fertilizers; rotation and association of crops; irrigation and drainage; harvesting, grading and storage of agricultural produce; outlines of maize, rice, bean, manioc, castor-oil, cotton and sugar-cane cultivation.

Undoubtedly the foregoing syllabus is conceived of as rounding off the work done on practical agriculture and the raising of small livestock throughout the three years of the teachers' training course, for which the syllabuses are as follows:

First Year

1. Horticulture and gardening; horticulture and its object; extensive and intensive gardening; location, seed beds; planting-out and transplanting; organization of gardens; choice and preparation of ground; herbaceous plants; cultivation and manuring; tools essential for the gardener.
2. Livestock. Bee-keeping; usefulness of bees and hives; distribution of work in the hive; swarming; extraction of honey.

Second Year

1. Horticulture and fruit-growing. Kitchen-garden pests, and their classification; insecticides; measures against ants; growing of different varieties of cabbage; growing of oranges, bananas and mangoes.
2. Livestock (poultry-keeping). Breeds and classification of poultry; location and installation of poultry houses; shade-plants and wind-breaks; shelters, nests and perches; food and water troughs; poultry hygiene; natural incubation and rearing; artificial incubation; selection of layers; feeding; balancing foodstuffs; poultry diseases and parasites.

Third Year

1. Horticulture. Revision of previous studies; value of green stuff in diet; medicinal properties of plants; storage of vegetables, etc.; crop-plagues; remedies.
2. Livestock. Elements of sericulture; cultivation of the mulberry, biology of the silkworm; feeding and hygiene; pig-keeping; advantages of pig-breeding; breeds; hygienic pigsties; diet.

As regards training in teaching technique, attention is mainly concentrated on a single discipline—educational psychology and methodology—given in the third year of the teachers' training course. The scope of the syllabus is very wide and includes outline accounts of reflexes, heredity, the internal secretions, affectivity, intelligence, activity, learning, general and special methods, and 'project' and 'centre of interest' methods. All in all, this syllabus differs in no way from those given in an ordinary secondary teachers' training school.

The regulations lay down that, in the last year of study, 'pupils will do practical teaching under the supervision of the instructor in methodology'. Once a week, teaching practice is to be carried out in the primary school, with a student giving a lesson, followed by criticism by the remainder and the preparation of reports on the primary school work. This form of teaching practice likewise is much

the same as that employed in other secondary teachers' training schools.

A study of the reports and other publications on the Juazeiro experiment leaves the reader with the clear impression of an undertaking in which principal and teaching staff are working with the utmost keenness and the best intentions but of which the whole work is prejudiced by the location of the school in the city and the recruitment of its pupils mainly from city-dwellers.

In 18 years of operation, 16 classes of teachers have graduated from the school representing a total of 358, mostly women. Unfortunately the course has held little attraction for young men and between 1937 and 1941 only two passed out. The average number of teachers graduating per year is 22.

Under the terms of the agreement with the state government, graduates of the school have priority for appointments to the charge of rural schools. However, a publication issued in 1942, giving details of the posts occupied by those who had graduated up to the previous year, showed that more than half were serving in town schools and a third in Juazeiro City itself—four of them in the school of commerce. Of the balance, 16 were teaching in neighbouring counties, but not all of them in rural schools.

What is the explanation of a result so different from the aims the institution set out to achieve? In the first place there is the fact that the majority of pupils are from Juazeiro City; second comes the general shortage of qualified teachers throughout the region, even in the urban schools. The fact that graduates are being used in schools of a branch as different from that for which they were trained as commerce is accounted for by the relatively high standard of the general education given in the school.

All the same the Juazeiro experiment has encouraged the establishment of other rural teachers' training schools in the state. In 1942 there were already four other establishments of the same type, in Limoeiro, Ituatu, Ipu, and Quixadá counties. Each of the first three mentioned had a Juazeiro graduate on its staff.

Even after the promulgation in January 1946 of the Teachers' Training Law which prescribes a shorter and simpler course for the training of teachers for rural schools, the Juazeiro school retained its original structure, appreciably expanded in 1944. The explanation is that the law in question merely lays down the minimum requirements courses must fulfil for their diplomas to be recognized officially. Nevertheless as long ago as 1935, an educator of the region, Professor Hugo Catunda was advocating the reduction of the course to four years, from the completion of primary studies.

The Juazeiro Rural Teachers' Training School has certainly rendered outstanding service to education in the state. Unfortunately

there is no documentation on the degree to which the school has kept in touch with its graduates nor even on the facilities it may have offered to teachers already serving in the rural schools of the region. However in 1935 the school was the scene of a Rural Education Week, organized by the Sociedade dos Amigos de Alberto Torres and sponsored by the Ministry of Agriculture; in 1944 a Rural Education Congress was held there, organized by the State Department of Education; and in 1948 it was again the scene of a second Rural Education Week, organized by the Ministry of Agriculture.

In 1952, the State Executive of Ceará sent a Government Bill to the Legislative Assembly of the State for the reform of rural teachers' training. The bill provides that the Juazeiro School and the others of the same type shall henceforth offer a course of seven years' total duration from the conclusion of primary education—or in other words, that they shall conform to the standard structure of secondary teachers' training, with a four-year course of basic secondary studies followed by a further three years of teachers' training proper. Notwithstanding the retention of the name *rural* teachers' training, the general effect of the bill is to raise the purely academic standard of the course.

So far the bill has not made any further progress; and a recent discussion group on rural education expressed its opposition in the strongest terms, one of the bill's opponents being the creator of the Juazeiro experiment, Dr. Moreira de Souza.[1]

[1] First rural education seminar, held at Belo Horizonte, between 13 and 20 November 1952.

CHAPTER IV

THE FAZENDA DO ROSÁRIO EXPERIMENT

An experiment on an altogether larger scale has been in progress since 1948 in the state of Minas Gerais. The body in general charge is the Advisory Service on Rural Education Techniques, a dependency of the State Secretariat of Education, and the main centre of the experiment is the Fazenda do Rosário, in Betim county.[1]

The planning and launching of the experiment were favoured by exceptional circumstances. In 1947, Mr. Abgar Renault, a former Director of the National Department of Education, became Secretary of Education of Minas Gerais. On examining the position of primary education in the state, he found that the rural schools, over 7,000 in number, were in most cases administered by the counties; that 91 per cent of their teachers were 'lay instructors'—i. e. without any previous training in teachers' training schools; that no machinery was available to enable teachers to 'improve' themselves and that their salaries were wretched. To correct these evils, Mr. Renault introduced a policy of co-operation between the state government and individual counties under agreements to be made separately with each and of which the main terms are the following:

1. The State Education Authorities to be responsible for policy making, central administration and supervision of the rural schools.
2. Salaries to be improved with the aid of a state grant, conditionally on rural teachers furnishing proof of suitability for admission to the teaching service and attending educational, training and extension courses.

The outcome was the establishment of the Advisory Service on Rural Education Techniques with responsibility for the organization of schooling in rural areas and for the administration of courses for teachers. The post of director of the new service was accepted by

[1] The state of Minas Gerais is in the east of Brazil but is not a maritime state. It lies between parallels 14° 13′ and 22° 54′ south and meridians 39° 52′ and 51° 2′ west. Its area is 582,000 sq. km. and its population nearly 8 millions, of whom 5 millions live in rural areas. The industries are agriculture, stock-raising and mining. Betim county, which is affiliated with the county of the state capital, has a population of 17,000, of whom more than two-thirds live in rural areas.

Professor Helena Antipoff who had collaborated in the project and was consulted on the possible participation in it of the Fazenda do Rosário, which belongs to the Pestalozzi Society of Brazil. Professor Antipoff was the foundress of the society and is its technical directress.[1]

What is the Fazenda do Rosário? It is a centre in which the Pestalozzi Society pursues a variety of activities with the principal object of rehabilitating handicapped children and adolescents in a rural setting. The Fazenda occupies a site of more than a hundred hectares, a few kilometres from the town of Ibirité and 25 from Belo Horizonte, capital of the state. The atmosphere is that of what might be called a 'rural community services institute', though as yet the title has never been officially used. There are boarding schools for the education of handicapped children; ordinary primary schools; medical and child welfare centres; a nursery flower garden managed by a team of Hungarian experts; a small pottery in charge of a competent artist; hand-weaving and carpet-weaving rooms and a variety of institutions used by those living on adjacent agricultural estates for co-operative undertakings, sports and general recreations. Since 1950 the establishment has also included a residential regional teachers' training course, introduced and maintained by the state government, for the better development of the plan.

The Fazenda has some agricultural land for the training of the pupils, and a number of commercial crops are grown separately. At various times of the year it is the scene of shows of produce, objects of popular art and domestic manufactures and of competitions such as tractor or ox ploughing matches. The Fazenda also takes a leading part in the staging of popular, religious and traditional fiestas, for which it stages playlets on folk or civic themes.

The variety of its undertakings and the fact that they are carried on with the spontaneous co-operation of the people of Ibirité and the neighbouring estates make the Fazenda a creative social force and a powerful agent of cultural, moral and civic uplift, the influence of which is felt for many miles around.[2] It is thus easy to understand why its co-operation in the training and improvement of rural teaching staff was bound to be sought: its whole layout would not only

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[1] Madame Helena Antipoff was assistant to Professor Edouard Claparède in the University of Geneva and came to Brazil in 1927 with a team of Swiss professors to organize the Teachers' Extension Training School, in operation at Belo Horizonte for some twenty years. She settled in Brazil and has since exercised a profound and beneficent influence through her connexion with the training of primary school teachers, at the head of the services of the National Child Welfare department and, in recent years in the Advisory Service on Rural Education Techniques in Minas Gerais. In 1951 the Brazilian Education Association submitted her name to the government of the republic for inclusion in the *National Book of Merit*.

[2] Examples are its influence on the work of the Caio Martins farm-school, a rehabilitation centre for abandoned children, and of the Floristal Middle School of Agriculture, in Para de Minas County.

facilitate the organization of courses and seminars but would prove an inspiration in itself.

It was realized that the training of new personnel would be only one facet of the great work to be attempted; in view of the high percentage of instructors, the first necessity would be to deal with them. A whole range of courses was introduced to enable the Advisory Service to tackle the problem in all its aspects. These courses were the following: Intensive holiday, or refresher, courses; Regional training courses; Extension courses; Regular training courses.

The Intensive Holiday Courses are a month in length and are held annually in the various county seats of the state; they have the twofold object of encouraging rural teachers to raise their cultural level and selecting candidates for training and extension courses. Each course is under the county directress of schools—provided she graduated at the former Teachers' Extension Training School—and is staffed by two county school teachers and by doctors and agricultural engineers recruited for the purpose. Courses consist of Portuguese, arithmetic and elements of geometry, geography and history of Brazil, natural science and hygiene, elements of domestic economy, and moral and civic instruction, the whole devised to bring out the methodological, or professional, approach to be used in rural primary schools.

Thus the 'Portuguese' syllabus contains the following items: (a) How to tell peasant children a story or describe an historical episode or an incident of daily life in clear, correct and expressive language. (b) Reading practice, aloud and silently, and explanation of the meaning; use of the dictionary; how to use works of reference and books. (c) Drafting of letters, invitations and notes; digests of passages read; description of an excursion; drafting of a report, keeping of a school journal.

In the geography syllabus the first group of items is the following: (a) Location of the school in the neighbourhood; distance of nearest houses, roads; areas built up or unbuilt; sketch map; the neighbourhood; roads. (b) The locality and the district; the physical, social, economic and historical picture; agricultural and manufacturing potentialities; sketch map showing estates, roads, schools, crops, neighbouring localities; the place of the locality in the life of the county. (c) The county; natural resources; agriculture, industry and commerce; the social aspect; founders and worthies of the county; county government. (d) The county in the state: location, zone to which it belongs; other zones; principal products of each... and so on for the state, the country, etc. The syllabuses for the other subjects are planned on analogous lines.

Between 1949 and 1952, intensive holiday courses were held in

361 counties of the state, the total number of rural teachers attending being 7,281. After the courses, teachers were given tests to ascertain which of them were capable of taking the regional training courses; in any case, however, the rural schools in which they serve will hence-forward have the guidance of the county directress of schools acting in accordance with periodic instructions from the Advisory Service for Rural Education Techniques.

The cost of each such course, with 25 to 30 teachers under instruction, is 30,000 cruzeiros, including catering.

Regional Training Courses are of four months' duration and residential. They are held on country estates where there are primary schools and suitable premises for the accommodation of the instructional staff and the teachers taking the course. The object is to fit rural teachers for a better discharge of their duties both to the children and, through the school as a community cultural and social service centre, to the children's families. The participants are drawn from the teachers who have shown promise in the intensive holiday courses and a marked interest in and taste for rural school teaching. The courses were originally given only in the Fazenda do Rosário but were subsequently introduced in five further regional centres, under technical staff who had worked at the Fazenda and were deemed capable of initiating courses on similar lines in other areas.[1]

As their name indicates, these courses are designed to provide serving personnel with the professional training which they had no opportunity of receiving earlier in teachers' training schools. Training takes the form of 'problems' and 'projects' devised to keep the trainees thinking in terms of the realities with which they must cope. Students are given a considerable degree of self-government and their active co-operation is sought in the organization and administration of the course.

The programmes are designed to give students a sounder and fuller knowledge of their mother tongue, arithmetic, natural science and hygiene, but in forms directly applicable professionally and enhancing their powers of leadership and sense of social service. The programme subdivisions—which follow, with the hours per week assigned to each—are by study assignments rather than by formal disciplines. Portuguese and the methodology of teaching it are given 5 hours; arithmetic, elements of geometry and the relevant methodology, 4 hours; natural science and its methodology, 3 hours; geography and history and their methodology, 2 hours; farming activities, 6 hours; domestic economy and rural industries, 3 hours; drawing, manual work and popular art, 4 hours; recreational and

[1] The federal government assists in the conduct of these regional courses through the National Institute of Educational Research.

artistic (dancing, singing and acting) activities, 3 hours; rural hygiene and sick nursing, 4 hours; social activities and civic education, 3 hours; physical education, 30 minutes per day. Students are also organized in groups 5 to 10 strong, with a special time-table, for practical work in the kitchens, kitchen gardens and orchards, and at sick nursing, carpentry, etc.

The *Extension Courses* are for the small percentage of the state's rural teachers (9 per cent) who have previously studied at a teachers' training school. In general organization and spirit, there is little difference between these and the training courses, except perhaps for a slight increase of emphasis on practical work, since the students possess a better grounding of general knowledge. These courses are likewise residential, last three months and are held only in the Fazenda do Rosário.

In the period 1948–52, 23 regional training and extension courses were held, attended by a total of 823 teachers. The details are given in Table 2 below.

TABLE 2. REGIONAL TRAINING AND EXTENSION COURSES FOR RURAL TEACHERS IN THE STATE OF MINAS GERAIS

Place	Number of students per year					Total
	1948	1949	1950	1951	1952	
Fazenda do Rosário . . .	23	163	114	102	113	515
Other centres	—	—	93	67	148	308
TOTAL	23	163	207	169	261	823

The *Regular Training Courses*, directly under the state authorities, are given at two regional training centres, one established in the Fazenda do Rosário in 1950 and the other in Conselheiro Mata, in Diamantina county.[1] The structure of these courses, four years in length, conforms to that prescribed by the Organic Law on Teachers' Training. They are residential. Students may be of either sex, must be over 13 and under 25 years of age, have completed their primary education and be in good health; admission is by selection from candidates put forward by the various counties of the region. Students are accepted on a scholarship basis, no charge being made

[1] Diamantina county, in the north of the state, has 60,000 inhabitants. Other regional training courses, run by the counties or by private bodies, but in all cases supervised by the state authorities, are in operation at the date of writing in the counties of Abaeté, Belo Horizonte, Ferro, Formiga, Guanhães, Matosinho, Paraguaçu, Rio Novo, Sabarà and Serro.

for board, lodging or instruction. The first of them will graduate as teachers towards the end of 1953.

In view of the influence of the training courses on the new regular professional courses, and of the volume of their output (823 teachers in four years, of whom 515 attended the Fazenda do Rosário), it will be worth spending a little time discussing their organization and functioning.

The teachers attending the Fazenda do Rosário vary in age from 19 to 50, the majority being between 22 and 26. On registration, they undergo a thorough medical examination and their health is under observation throughout the course. They are weighed weekly and advised on diet; the names of those incapable of heavy work or long road journeys are notified to the administration.

On the psychological side, students undergo intelligence tests and take the Strong questionnaire to ascertain their interests and preferences.

From the data obtained from these and other sources, the following picture emerges:

1. The bulk of the instructors have a country background and come from farming families on small or medium-sized holdings. They are therefore familiar with country life and its interests and enjoy working in the open air and with crops and animals; they can ride and like chatting with labourers and their families.
2. However, they fall short in academic education: 64 per cent of them are below the fourth year standard of primary education and only 5 per cent of those scrutinized possessed a standard of education above the fifth year of primary studies.
3. When transplanted to urban surroundings, they experience some timidity or insecurity, at least in the initial weeks; the majority however show a real desire to advance and are eager to increase their education.
4. Generally speaking, the teachers of this category display a grasp of the human task of the rural school. They exhibit a spirit of altruism, economic sense, definite religious convictions and a liking for children; many also reveal a marked inclination to self-expression through the arts (drawing, modelling, music, acting).

The establishment is run with the assistance of a students' council, subdivided into commissions (accommodation, catering, studies, social relations, purchases and communications). Each commission is in office for one month, when a new one is elected by a general meeting of the students.

According to a roster drawn up in advance, each student in turn is responsible for drafting the day's log, which is read to the students at the conclusion of one of the meals on the following day and then

discussed. This group diary contains nature and meteorological as well as study and social notes. In addition, each pupil is issued with a notebook for his personal use, in which he enters his daily impressions without restriction; at the end of the course the notebooks are returned to the administration and carefully analysed. The influence of such exercises on students' mastery of language and powers of observation is very great; furthermore they provide the administration and instructors of the courses with pointers of the utmost value and interest for the recasting of administrative or instructional methods.

The evaluation of the scholastic and other work done by students is largely left to themselves and is effected by means of mark sheets and graphs designed to induce them to try to surpass their own previous standards. Graphs are marked up weekly and monthly.

Except for a waking bell in the morning, work is not regulated by bells. The distribution of the time on working days is as follows:

6 a.m.	Wake, bath and tidy dormitories.
6.45 a.m.	Light breakfast.
7 a.m.	Revision of the previous day's work; preparation of the morning tasks.
8 to 11 a.m.	Classes.
11.15 a.m.	Clean up for luncheon.
11.30 a.m.	Luncheon.
12.30 to 2 p.m.	Rest and preparation of the afternoon's tasks.
2 p.m. to 5 p.m.	Classes and practical work, with a half-hour break at 3.30 p.m. for tea.
5.30 p.m.	Bath and change.
6 p.m.	Dinner.
8 p.m.	Meeting of the students' council and commissions; social activities.
10 p.m.	Silence.

Programmes are planned on flexible lines, the emphasis being less on academic learning than on getting pupils to apply their observations and knowledge to problems and projects affecting the well-being of the rural school, its children and their families, and the community to which it belongs. As the various problems and projects are set, the students themselves come to realize the deficiencies of their training, which they are encouraged to make good by individual study plans. It is most unusual for such plans to be capable of completion within the period of the course, as students realize that they must continue to study even when they are back in their own schools; for this purpose guidance by correspondence from the teaching staff of the Fazenda do Rosário is available to them.

In these training and extension courses, designed for serving per-

sonnel, the following are the main problems on which interest is centred:

What are the practical aims of education and what are the functions of the rural school?

What methods can be employed by rural schools in Minas Gerais for the better attainment of their prescribed educational objects?

How should life on a country estate be organized to enhance the well-being of those living on it and of the neighbours, and what can the school do to this end?

What do climate, water and soil mean in the life of the countryman?

How do the children attending the rural schools near the Fazenda do Rosário live? What is their state of health? Under what conditions do they work and study? What are their cultural aspirations, their interests and ideas?

Given an accurate diagnosis of the circumstances preventing greater progress, what could or should the rural schools do to change them?

What are the salient characteristics of the regional flora and fauna and how could productivity be increased for the benefit of the human population?

What are the cultural forms of the region (organization of the family, religion, customs, level of education, administration) and in what way could the school remould them for the better without destroying their distinctive character?

What is the relationship of the county as a whole to the life of the state of Minas Gerais?

It is this realistic and pragmatic attitude, which sets the note of the teaching and dictates the lines of the syllabuses. An illustration is the geography syllabus, which amounts to a comprehensive analysis of the region:

Introduction; delimitation of the field of study, primarily in terms of the schools' sphere of action (inhabitants, roads, forms of work, housing).

Relief of the region; general considerations; comparison with adjacent regions.

Soil; topographical limits of the area under study; collection of samples of the various types of soil found; their popular names and fertility; plant varieties of the natural vegetation; crops; erosion; advantages and disadvantages of the soils studied; lines on which an endeavour to correct the latter should be made.

Subsoil; examination of samples in road cuttings, wells, tunnels and excavations; outline of the geology of the region, likewise given in practical form; a brief general account of fossils.

Climate; its influence on human life and on agriculture; temperature range; prevailing winds; rains; flooding of rivers; normal and abnormal water levels; storms, their frequency and direction and the times of year at which they occur; seasons.

Various forms of land utilization; areas under crops and their relation to relief; principal agricultural activities noted by observation; rural calendar of the region; whether or not this is dictated by traditional fiestas, folk customs, or labour movements; farming tools; methods of work; production costs; local livestock; collection of data on types of animals, breeds, origin, feeding, diseases; produce and its disposal; make-up of pasturage; animal products and home industries.

Vegetation; native species; woodlands, deforestation in the region and its effects; reafforestation; fruit, ornamental and medicinal varieties.

Hydrography; springs, rivers, lakes and marshes; potable and non-potable water; water catchment; chemical and bacteriological analysis of water; depth of ground water; running water and its use for power production.

Types of dwellings and whether numerous or not; whether forming hamlets or dispersed; reasons for dispersion; houses of landowners and labourers; material employed; roofing; design; hygienic conditions.

Type of land tenure; small and large estates; resident and absentee landowners; work for wages; share-cropping; wage levels; availability of labour; factors governing this; agricultural credits; co-operatives.

Health; types of ill-health in the region; exploration of their possible origins (way of life of the populace, financial circumstances of the labourer, diet, etc.), notions about diseases; prevention and cure; healers and sorcerers.

Export of regional products; types of packing and transportation; transport costs; collection of factual data on these points.

Population; numbers; increase or decrease in recent years; causes of such fluctuation; the birthrate; rural depopulation; why men leave the countryside and where they go.

Regional usages and customs; types of recreation.

On these studies are based monographs, jointly produced by groups of students, which serve as models for what each must later do for the region round his own school. Papers of this type reaching the Advisory Service on Rural Education, are providing it with excellent documentation. To secure greater uniformity in the collection and presentation of the data, the service recommends the suggestions on the study of the environment in Godier and Cunèo's *Vademecum pour les Activités Dirigées*.

Hygiene and sick nursing are dealt with on similar lines to geography. The first task given to students is the completion of health cards for the children in the attached school containing the essential data for the problems to be studied in the course (nutritional deficiencies, parasites, endemic diseases of the region, etc.). They are also shown at the same time how much can be done through education by the school, how much by the doctor and how much in the shape of general sanitation by means of major or minor engineering works.

Ability to fill in this form enables teachers, on their return to their own schools, to tackle the analysis of the health problems of their areas and to provide their people with guidance in the matter. In this they receive the assistance, by letter, of the instructor in hygiene of the Fazenda do Rosário, who refers to the public health services of the state when necessary. In return the teachers supply these services with invaluable information on the presence and whereabouts in the state of various insect or animal carriers.[1]

The effect of such a course in stimulating the spirit of public service in students may be imagined. In addition, it is as conducive to interest in studying the biological cycles of certain animals, useful and harmful, as the practical agricultural work is to interest in botany. However, botany, zoology and everything else must be studied in the light of their relevance to man in general and the child in particular. Accordingly the Fazenda do Rosário courses lay great emphasis on the objective study of the child in its local setting, the procedure taught following the general lines prescribed and promulgated by the Ministry of Education's National Child Welfare Department and covering the following points:

1. Structure of the child's family.
2. Type of housing, furniture, domestic utensils, state of cleanliness, decoration.
3. Diet of the family and part played by the child in the preparation of meals.
4. Work done by the child in the house and on the holding; his contribution to the family income.
5. The child's amusements and playthings.
6. Religious traditions and festivals.
7. Treatment of children by their parents in sickness and in health; punishments, rewards, etc.
8. Distance travelled by the child between home and school; degree of interest aroused by what he sees on the road, in the fields, in the forests and by flora and fauna.
9. The influence the rural school can have on the child's life and through him on the life and prosperity of his family.

[1] For example, the mollusc conveying schistosomiasis and the insect vectors of Chagas disease, both extremely grave endemic maladies.

A point in the Fazenda do Rosário courses worthy of special emphasis is their stressing of the human aspect. Put in their context as items in a comprehensive study of man's physical and biological environment, the lessons in agriculture and small livestock keeping become sermons on man's struggle to dominate his environment and improve it through knowledge. Not that this notion is conveyed explicitly in words and in the classroom to teachers and prospective teachers: it must be lived, and its truth felt, by the pupils themselves. It is this vision, rather than mere farming and technical training, which it is sought to impart. Thus it is on the grounds that health depends on better diet that the idea of school kitchen gardens can and should be advocated; similarly the notion of better working of the land should be presented as an aspect of the improvement of the general prosperity of the people.

It is in this spirit that students carry out their practical agricultural training. They begin with very simple problems such as where to put a school garden, how to prepare the soil (draining, manuring, irrigation), where and how to secure seed, how and when to sow, how to transplant, how to irrigate. The work is organized on a club basis, beginning as a garden club and later expanding into a farmers' club, at which stage fruit-growing, grafting and the preparation of ground for fruit-trees are included. The purpose of the clubs is less to give technical training in the strict sense—which is only suitable for prospective specialists—than to train the members for their social work and try out their qualities of leadership and their sense of public service.

Co-operatives are used for similar ends. Each term of students is encouraged to set up a consumers' co-operative for the supply of members' school material and articles of daily use at cheaper prices. The position is the same as regards the social or recreational clubs. More extensive practice is also obtained through participation in the work of the Fazenda's permanent social institutions—e.g. the housewives' club, the clinic and the dispensary. In this way students' social experience is enlarged and opportunities are afforded for the exercise of qualities of leadership.

The difficulties of providing instruction on these lines for teachers in service or even for prospective teachers in a regional training course are obvious. The routine, the academic, the artificial—and hence any rigid programme—must be eschewed. As Madame Antipoff puts it in one of her reports: 'No course exactly duplicates the programme of recreational activities or of social service given in other courses. On the contrary, each term of students drafts its own time-table and projects with full liberty to select from earlier programmes whatever has been proved to give good results. Each course is free to include in its programme whatever its members and

instructors are agreed is necessary. The training centres are run on a permanent experimental basis and that undoubtedly is one of their qualities.'

Another big factor in the achievement of good results is limitation of the number of students in each course to 25 or 30. Members become intimately acquainted; *esprit de corps* develops and the group as an entity acquires great moral authority over its members.

The third condition of success is the atmosphere of a 'rural community services centre' of the type of the Fazenda do Rosário, in which the full quality of the instructional staff can find expression. The majority of the instructors are educators and not agricultural experts and their work and example inspire profound belief in the task being carried out.

The creation of that spirit in the initial training courses of 1948 and 1949 can be ascribed in great measure to the example of whole-hearted devotion shown by Madame Antipoff and many of her former pupils, trained in the old Teachers' Extension Training School; while the continuous expansion of the work is largely due to the enlightened support of the Secretary of Education and some-time National Director of Education, Mr. Abgar Renault and of the governors of the Pestalozzi Society of Brazil.[1]

It was only after two years of work in the Fazenda do Rosário with four courses already complete, that the regular regional teachers' training course for the systematic training of recruits for rural teaching was installed there; the new institution therefore found the ground well prepared. To house it, extensive premises were erected with the aid of a federal grant of nearly 2 million cruzeiros; they comprise classrooms, offices and living accom-modation, and 35 hectares of agricultural land are attached. Subsequently, the students themselves built a carpenter's shop, seed-sheds, a poultry house, rabbit-hutches, etc.

The teaching staff consists of a nucleus of five resident instruc-tresses, who participate in all the activities of the establishment, plus three specialists (the professors of hygiene, geography and music), who come from the state capital, about 16 miles away. The head of the establishment is Professor Olga Costa Coelho, an educator of exceptional quality. A resident agricultural expert is in charge of

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[1] The Pestalozzi Society of Brazil is a federation of regional societies. Its president is Judge Augusto Saboia Lima, sometime judge of the children's court in the federal capital; in recent years he has organized and is running a model rehabilitation centre for abandoned children. The president of the Pestalozzi Society of Minas Gerais, at the time of the agreement with the state government, was Sandoval Soares de Azevedo. He died in 1950 and in recognition of his services the state government named the regional teachers' training course of the Fazenda do Rosário after him; its official title is thus the Sandoval de Azevedo Regional Teachers' Training Course. The government of Minas Gerais continues its patronage of the work of the Fazenda do Rosário.

the land work and gives practical classes in agriculture; and a master carpenter, also resident, works with the pupils in the making of furniture, utensils, fences and rustic shelters.

Instruction is full-time from 6 a.m. to 9 p.m. with a time-table on similar lines to that of the short training courses, but with longer intervals for rest and recreation.

Students are of both sexes and selected from the various counties in the state. Instruction, board and lodging are free, but students are under obligation to return to their own areas to take charge of rural schools as directed by the local authorities. Ages range from 15 to 25 and students are organized in teams, changing over every fortnight, for the performance of the various household and school duties. No discernible awkwardness has yet arisen from having boarders of both sexes in the same establishment. However the male students do not amount to more than 10 per cent of the total.

Teaching practice is carried out in 'single-teacher' schools adjacent to the headquarters of the regional course; on occasion the pupils are brought from the school and practice is carried out in the open air.

No assessment can be made of the results of the regular regional teachers' training course at the Fazenda do Rosário, as its first students will only graduate at the end of 1953. However their training is being carried out in the same spirit which has presided at the short training courses for teachers in service. Of the success of the latter courses there is abundant documentary proof. This consists of personal correspondence between former students at the courses and members of the Fazenda teaching staff, of official correspondence between the rural teachers who have had this training and the Advisory Service on Rural Education Techniques, and finally of reports by school inspectors, county prefects and other authorities.

The principal impression gained from the documents of the first group is of the moral and civic vision which the training courses have given rural teachers. One is left in no doubt that the writers feel themselves partners in a common undertaking and no longer isolated in their own tasks. Their letters show the eagerness of many of them for a wider and fuller culture, the better to serve the people of the countryside. Some of the letters are really moving on both scores.

The official correspondence reveals the widespread development of a professional conscience, formerly almost non-existent, and in addition, a new confidence in the education authorities of the state. This new attitude is also undoubtedly due in part to other improvements in the condition of teachers—e.g. the raising of salaries, supplemented by the state, and the installation of many rural

schools in new premises with a house for the teacher and his family attached.[1] To be frank, however, numerous examples of the same spirit are to be found among teachers who as yet have not benefited by either of the stimuli mentioned; the explanation is the influence over the whole profession of the Advisory Service on Rural Education Techniques, through its periodical *Escola Rural*.

The reports of rural education inspectors and counsellors confirm the impressions gained from study of the correspondence with the teachers themselves. On occasion these reports are accompanied by monographs on the school or on the region in which the school operates. In other cases the enclosures take the form of less ambitious progress reports, in which teachers describe the difficulties they have met with, the errors committed and successes achieved.

A very typical example is a progress report by the schoolmistress of the Varginha Rural School, in Brazopolis county, for the second half of 1949. This teacher had previously served for 10 years in another school without guidance from anyone. After the training course she began to put the new knowledge and techniques she had acquired into practice and her first step was to organize a school soup kitchen. The result was an increase in school attendance, this direct incentive making it easier for her to start a small kitchen garden worked by the pupils. The county prefect, appreciating the difficulty of cooking in the open air, had a small kitchen built on to the school and a neighbouring landowner, seeing that the school's land was unsuitable for a kitchen garden, gave permission for the school to use part of his land for the purpose. The pupils themselves came to see that they could augment their resources by selling part of what they grew as well as articles made by them under the teacher's guidance. With some of the proceeds, a small dispensary was set up in the school, for which the services once a week of a trained male nurse were secured. From the moment the dispensary was opened, new and enhanced interest in the school was shown by the neighbouring population. Concluding her detailed, simple, almost ingenuous report, the Varginha schoolmistress writes: 'Today we have abundance; the atmosphere is happy; attendance is high and the children are healthy.' Her case, here quoted as an illustration, is only one among many.

The documentation which the present writer has been able to examine shows that a high percentage of teachers who have taken the Fazenda do Rosário's training courses are showing firm determination to make their schools instruments of social service and that

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[1] The rise in salaries follows the signing of agreements between the state government and many, though unfortunately not yet all, counties. New buildings have been erected under the Ministry of Education's school building programme using a part of the resources of the National Primary Education Fund.

the result is a change in the nature of the relationship between the school and its pupils' families. The teachers are making every effort to inculcate sound ideas of hygiene and the care of children and are encouraging in their pupils a taste for country life, primarily by organizing recreational and productive activities.

As regards any evidence of improved results in the shape of a higher percentage of passes in annual examinations, there are as yet insufficient data for a sound evaluation of the variations revealed by sampling. An extremely encouraging point is the appreciable rise in school attendance noted in almost all the schools whose instructors have taken the training courses for serving personnel at the Fazenda do Rosário.

The rural teachers' efforts bear fruit more quickly when there are health services or producers' advisory services in the locality; when the county authorities or the parish priest grasp what the teacher is about and afford him their support, if only morally; or when the same teacher is in charge of the rural school and the night school for adolescent and adult illiterates and can consequently secure a greater measure of active participation by the local population. Nevertheless this reservation in no respect detracts from the significance of the details now coming to hand on the results of the work of those who have taken the Fazenda do Rosário courses. On the contrary, available information shows that ex-students are proving able to secure the co-operation of other services and persons and are making every endeavour to implant a genuine 'fundamental education' outlook in the rural schools of Minas Gerais.

CONCLUSION

The question then arises whether any general conclusions, valid for rural teachers' training in Brazil as a whole, can be drawn from the two experiments described. In the writer's view they can, provided that the special circumstances conditioning both experiments are borne in mind and due allowance is made for the educational evolution and economic transformation of the country in recent years.

1. Both experiments, having been mounted by private bodies, are indicative of deep concern for the amelioration of country life both educationally and on the social and economic side. The Juazeiro do Norte scheme appears to have had its origin, at least, in the uneasiness of a number of cultivated citizens of the north-eastern region at the poor results secured from costly large-scale works undertaken there to combat the effects of periodic droughts, the failure being due to the people's lack of education. The Fazenda do Rosário experiment was part of a wider political scheme and would appear to have been instituted with a number of ends in view, one of them being the prevention of large-scale movements of population from Minas Gerais to neighbouring states in the east and south, where industrialization is creating a demand for labour, and to the west central states, where the frontier of the settled area is being pushed back.
2. The premisses of the two experiments differ. In the case of Juazeiro do Norte the hypothesis adopted was that it would suffice to add instruction in agricultural practices and techniques to the curriculum of the city teachers' training schools to make the teachers so trained eager to work in rural schools and to convert them into effective instruments for 'attaching the peasant to the soil'. At the Fazenda do Rosário there appears to have been a clearer understanding that the problem of the *training* of rural teaching staff is intimately connected with that of its recruitment. This scheme accepted the system of—so to speak—spontaneous recruitment in existence and sought to adapt or readapt the teachers it found in service to a new educational philosophy and methodology with an explicit 'social service' twist. Concurrent study of the human material led to the conclusion that rural teachers

must have a country background and can only be trained efficiently in a rural environment suitably modified by the creation of conditions favouring the idea of social progress. In point of fact the first stage in the experiment was not the introduction of regular training courses but an endeavour to reclaim the makeshift teachers already in service.

3. This order of priority had good effects, whether deliberately aimed at or not, in that the visits of hundreds of teachers to the Fazenda do Rosário in successive groups kept the establishment abreast of the current problems and real needs of rural education in the state. Thus it was possible to give the experiment, from the very beginning, the stamp of unquestionable realism and deep human understanding; and from this the regular training courses, introduced later, are now profiting.
4. Furthermore, the proposition maintained from the very beginning that the atmosphere of the courses must be that of a 'rural community services centre' if they were to instil the community spirit, appears to have been confirmed in practice. The elements which the Juazeiro do Norte experiment lacked were this atmosphere, the fulfilment of certain essential conditions by the candidates and a centre allowing of the maintenance of a permanent teaching staff living in and sharing the social life of the students. This last would seem to be a decisive condition for the success of undertakings of the kind.
5. Comparison of the results obtained from the two experiments and consideration of the social and economic circumstances of the country's population indicate that the duration of training courses for teaching staff must be brief and their structure simple and unambitious. Four years, counting from the completion of the primary course, with students between 14 and 15 years of age, appears to be sufficient. There is no reason for the inclusion in the course of foreign languages or advanced academic disciplines. On the other hand there must be a maximum development of the extra-curricular activities which promote the community life calculated to instil a true spirit of social service. For the same reason the residential system is indispensable.
6. Care in the selection of students, in the organization of the programmes and in the adoption of active methods is of course essential for success. However, the effects of all this will have no permanence, if those graduating from the courses are left to their fate, if they lose all contact with the training centres and have no further technical educational advisory services to guide them and to promote the dovetailing of their school's educational efforts with those of other institutions. Permanent contact with graduates from their courses will help centres for the training of serving or

prospective teachers keep their plans, programmes and methods under continuous review. Short courses in the chief centres, for serving teachers, will produce excellent results as the Fazenda do Rosário experiment shows. In countries like Brazil with a high percentage of untrained teachers these arrangements, which can do so much to raise the standard of rural teachers, should be widespread.

7. Both the Juazeiro do Norte experiment, dating from 1934, and the much more recent Fazenda do Rosário scheme have exercised an appreciable influence on the mental attitude towards Brazil's problems of rural education. A number of neighbouring states have sent teachers to Ceará for courses in the Juazeiro Rural Teachers' Training School, while grant-aided students from many states have been sent to courses at the Fazenda do Rosário. The former establishment has been the scene of seminars on rural life, and only recently the First Seminar on Rural Studies was held at the Fazenda with the representatives of 16 Brazilian states participating. The conclusions of this seminar included the suggestion that a rural education institute be set up, to carry out research on the subject and to train instructional staff for regional teachers' training schools. Incidentally, the same idea had already been mooted earlier by a commission set up by the Brazilian Institute of Education, Science and Culture, which is the Brazilian National Commission for Unesco.
8. Concern for the education, training and refresher training of teaching staff for rural schools has increased in Brazil in recent years. Valuable experiments have been carried out in a number of states in addition to those described (Pernambuco, Rio Grande do Sul, São Paulo, Santa Catarina). The efforts of educators are being reinforced by a new public awareness of the problems of rural life, brought about more particularly by the disparity between the country's agricultural and industrial production. In June 1951 the President of the Republic sent a message to the National Congress asking for the establishment of a rural social service on similar lines to the existing industrial and commercial social services. One of the objects of the new body is 'the education of, and provision of health services for, the rural population, the promotion of the organization and reorganization of rural communities and the carrying out of enquiries and surveys on the financial and economic needs of the countryman'. A month later the President of the Republic issued a decree setting up a National Commission on Agrarian Policy. In addition, as far back as 1950 the Ministry of Education, with the co-operation of the Ministry of Agriculture, had made experiments with rural fundamental education missions. Since then the same ministry has been

developing small centres for the training of rural social service leaders at various points in the country. Between 25 January and 14 February 1953 a Latin American Seminar on Rural Amenities was held at the Rural University near Rio de Janeiro under the auspices of the UN and the Brazilian Government.

9. All these enterprises and innovations show clearly the need for improving the training of rural teaching personnel, though without prejudice to any other measures which may be devised for integrating the rural school in an organic system of 'fundamental education' in the broad sense in which the term is used by Unesco.

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PART II

RURAL TEACHER TRAINING IN THE GOLD COAST

by L. A. CREEDY

CHAPTER I

TEACHER TRAINING POLICY IN THE GOLD COAST

Until 1945 there were two main courses of teacher training in the Gold Coast, one of four years' duration for young men and women who had passed Standard VII in the Elementary School (now renamed Middle School Form IV) and a similar course of two years for candidates with a secondary school education, who normally held the Cambridge School Certificate. Some colleges offered one of these courses and others both, and teachers trained in these courses were prepared to teach in any class from Infant Class I up to Standard VII, though in point of fact some students were trained especially for a certain section of the school. The training given by these colleges was not directed particularly to either urban or rural schools, although in actual practice many of the students were drawn from the towns and hoped to return to such schools.

In recent years great changes have taken place in education in the Gold Coast which have naturally affected teacher training very considerably.

Planning began shortly before the war, when a representative committee surveyed the whole field of educational development, and directed attention particularly to the need for a great extension in the number of rural primary schools (schools admitting children at the age of about six years and giving them six years basic education). Most of the people of the Gold Coast live in villages or quite small towns, so the emphasis was on the needs of the rural areas; and, as the majority of children did not go to school, the first objective was to make a minimum of six years of education available to as many pupils as possible.

Obviously the key to such educational expansion lay in the training of the necessary teachers. Teachers were needed quickly; their salaries must be such that the country could afford a greatly increased cadre of trained teachers; and they must be equipped to teach in the rural primary schools. So the idea was evolved of a new two-year course of training, designed to speed up the production of teachers and to train people especially for village primary schools. Such a policy was, naturally, not without its critics; it was argued, for example, that a shortened course of training would mean a lowering

of standards, and that this would hit the schools at the most vital—i.e. the lowest—level. On the other hand, it was contended that if the new course of training concentrated on preparing teachers to work in a particular section of the school, its results would be satisfactory, and this is the way in which in actual practice events have turned out.

The committee to which we have referred made its report in 1941, but under wartime conditions it was not possible immediately to open new training colleges. But wartime conditions proved no barrier to the opening of new schools, and schools began to mushroom throughout the country, with the result that at the end of the war there were many primary schools with no trained teachers at all on their staffs. Such a state of affairs made the speeding-up of teacher training plans a vital necessity; and since the war most of the existing colleges have greatly increased their output and in addition more than a dozen colleges giving the new two-year course have been opened.

Even since the opening of these colleges, significant alterations have been made in the system of Gold Coast education. In 1951 the government adopted an Accelerated Plan of Development for Education, under the terms of which fees were abolished in primary schools in 1952. As this greatly increased enrolments and hence the need for teachers, further alterations were proposed in the structure of teacher training to meet the new demands.

By 1951 the two-year course of training was beginning to prove its worth, but it was proving increasingly difficult to fill the colleges with candidates of the right quality. This was only to be expected. The brightest pupil went to the secondary school; his slightly duller brother or sister to the four-year course of teacher training; and the two-year training course leading to a lower-paid post with fewer prospects of advancement, had to take what was left. The Accelerated Development Plan made a significant change in all this. All teacher training candidates, other than those with a secondary school education, now have to attend first a two-year training college and qualify for Teachers' Certificate B. They then go out to teach for a period, and subsequently the best of them are selected for a further two-years' course leading to Teachers' Certificate A. These courses are given at the older-established colleges, which now give a two-years' course to secondary school candidates and, in place of the four-years' course, a two-years' course to holders of Certificate B.

In conformity with this new policy further two year training colleges for Certificate B have been opened, 18 in number at the beginning of 1953. Most of these are in the Colony and Ashanti, and one is in the Northern Territories. The majority train men only, but there are two colleges for women only and four are co-educational.

Two Certificate A women's colleges also give a Certificate B Course now. Some of the colleges are run by the Education Department of the government, but most of them are controlled by autonomous boards of governors and staffed by one or other of the Churches which play such a large part in the education of the Gold Coast.

Recent developments have meant that the two-year college now trains teachers for primary schools in the towns as well as the villages, but it is too soon for this alteration to have produced any significant change in the nature of the training given by such colleges. Nor are marked changes likely to occur, for most Gold Coast schools are rural ones, and the Gold Coast training college must always give much attention to the needs of the countryside. This has been and continues to be true of the Methodist Training College, Komenda, of which an account is now given. Although there are, of course, differences between one training college and another, the college now described is in essentials a typical Gold Coast rural teacher training college.

CHAPTER II

METHODIST TRAINING COLLEGE

SITUATION, BUILDINGS AND GROUNDS

The Methodist Training College, Komenda, has a delightful setting well suited to the training of rural school teachers. It stands on the coast a mile outside the little fishing town of Komenda, and the main college buildings are situated on a long low ridge immediately overlooking the sea. During the war these premises housed a Fleet Air Arm station.

On the initiative of Mr. A. B. Sam, Regent of the Komenda State, the larger part of the buildings were purchased from the Navy on behalf of the state, and later the Methodist Church was asked to consider using them for educational purposes. The Church was happy to lease the buildings for use as a teacher training college, and the Gold Coast Government gave a generous grant of £9,000 for essential repairs and alterations and for the provision of equipment. Renovations were carried out in the second half of 1947, and the Methodist Training College was opened here in March 1948.

The buildings, solidly constructed in cement blocks, needed the minimum of alteration to fit them for teacher training purposes. The largest building contains five classrooms, dining hall and kitchen, an assembly hall used as a chapel, and some space for library, offices, stores and a temporary classroom. The students live in six dormitory blocks, each containing nine rooms together with a bathroom and latrine. Each bedroom houses not more than four students, and we have found that such accommodation is well suited to the type of student we have recruited (it is more usual in training colleges here to have large dormitories holding 20 students or more). It has also been possible to adapt existing buildings so that all the staff live on the college site—a factor of the greatest importance in building up the sense of college community as well as in running the college as efficiently as possible.

Since the college was opened the buildings have been improved in a number of ways, and last year the unsatisfactory roofing felt was replaced by corrugated asbestos sheets, which are both more serviceable and more attractive in appearance. Further improvements are,

however, required to make the accommodation fully satisfactory—a permanent art and crafts and woodwork block, a larger dining hall, a better library, a separate chapel, and improved staff houses. The government has so far financed the renovation and improvement of the buildings, and it is hoped that funds will be forthcoming to meet the remaining requirements.

The college is also fortunate in having had ample land placed at its disposal by the Komenda state—both for present needs and future developments. Along the foot of the college hill is a farm of nine acres, cultivated almost entirely by the students. A short distance away is a sports field, circled by a 440-yard running track, which was cleared and prepared by the first students during 1948 and 1949. It was a proud day for these students and for the college when our first athletics sports meeting was held on this field at the end of 1949 just before these pioneer students left college. (In a project of this nature it is a great help to have some definite objective in view.)

As soon as the college was opened plans were drawn up for the gradual development of the grounds, and more land has been brought under control each year. A coconut plantation planted in 1948 is just beginning to bear fruit, and an orchard of oranges, limes, guavas, mangoes, etc. has also been started and firewood plantations are being gradually extended. A flock of sheep is being reared, and areas are being put under centrosema (a leguminous crop useful both for fodder and for improving the soil).

ORGANIZATION AND FINANCE

Three agencies have co-operated in the development of the Methodist Training College—the Methodist Church, the Gold Coast Government and the Komenda state—and it is right that tribute should be paid to the contribution that each has made and to the co-operation that has existed between them.

From 1948 up to 1952 the college came under the direction of the Synod of the Gold Coast Methodist Church, and the principal was assisted in his management of the college by a committee appointed by the Synod. An independent body of governors is now being established to govern the college and is being made a body corporate by law. Governors are appointed by the Methodist Church, the central government and the Komenda local authority, and will shortly take office. We do not anticipate any major changes of policy under this new body but rather we believe that the college will be strengthened by the more formal association of the three partners already referred to.

From its inception this college (like other Gold Coast colleges now)

has been financed mainly by annual grants from the central government. From 1948 to 1951 the government met the full cost of the teaching and administrative staff, and in addition made a grant based on the number of students in residence. It was necessary also to charge the students for part of the cost of their boarding and the full cost of textbooks, clothing, etc., a total of approximately £20 per annum. But the income obtained from these various sources did not cover essential expenditure—mainly because prices were rising and the government's *per capita* grant was stationary—and every year the government had to be approached for (and fortunately did pay) a supplementary grant.

In 1952 important changes in the financing of colleges were introduced. Each college drew up a budget of its proposed expenditure, and after the government had scrutinized and if necessary amended this, a grant was paid on the basis of this budget. The first year's working of this system has been satisfactory, and has relieved college administrations of many of their financial anxieties. A further vital change concerned the students and their fees. Each student in training now receives the same salary as he would earn as a teacher (£72 p.a. in 1952 for uncertificated teachers) and out of this pays the full cost of boarding, textbooks, etc. These fees come to some £50 odd, with the net result that the student receives a small monthly allowance during term and a larger one for the vacations. Whereas in the past some good candidates were lost to the teaching profession because they could not afford the fees, this should no longer be the case.

THE STUDENTS

Since it opened in 1948, the college enrolment has grown considerably. Forty male students were admitted in the first year, divided into two classes, with a staff of six tutors. Classes were deliberately kept small to begin with and the staffing was on a generous scale, in order that the foundations might be carefully laid and the staff should have ample time to work out syllabuses, etc. The results amply justified this policy and at the Dedication Ceremony held at the end of the first year praise of what had been achieved within the year was widely expressed.

In 1949 60 more men were admitted. At the end of the year the original 40 left, and 60 more were admitted in 1950, bringing the enrolment up to 120 men. This was the number for which the college was originally planned, but we were asked to consider admitting a class of 30 women in 1952 as a temporary measure. As some airfield buildings not already renovated were available, it has been

possible, with government assistance, to prepare accommodation for one women's class in 1952 and for a second in 1953, and our students now number 180—120 men and 60 women. At the time of writing it is not clear whether or not the college will remain co-educational, but the general feeling is that the admission of women students has enriched the life of our college community.

Students are selected by means of an entrance examination and an interview, supplemented wherever possible by a report on the candidate's practical teaching. The examination comprises English, arithmetic, vernacular and scripture. Preference is given to candidates with teaching experience, and few of our students have taught for less than two years, while some have taught for as much as 10 years or more. The majority are over 20 years of age and some are over 30; we have found that most of the older students, providing they are carefully selected, do well. Experience has confirmed our belief that if one is to train a teacher adequately within a period of two years, those selected for training should have a certain maturity of outlook and should have done some teaching.

Our students have been drawn from most parts of the Gold Coast Colony and Ashanti, up to about 250 miles away, and from various language areas. The inter-mingling of various tribes has benefited the students and enriched the life of the college. A majority of the students come from rural areas or have had some teaching experience there. Some have worked at other jobs besides teaching, and in particular we were glad to have here a number of ex-servicemen, whose general deportment and discipline had a beneficial effect on the whole college.

Most of our students are members of the Methodist Church and are being trained to teach in Methodist schools throughout the country, but a few belong to other Churches and are being trained for Local Authority and other schools. The number of candidates used to be about 150 a year, but last year, under the stimulus of the changes already mentioned, it rose to well over a thousand (i.e. for 90 places).

Characteristic of our varied student body is their keenness to learn and their determination to become good teachers; and this enthusiasm has been a great help to the staff.

THE STAFF

The keenness of the students has been matched by the zeal and experience of the staff. All the tutors (apart from the principal) are Africans, and most have had considerable experience in primary schools. The original members of the staff were given a year's special

training (along with a number of Presbyterian colleagues) at the Presbyterian Training College at Akropong, to prepare themselves for their new work; subsequently they also served as visiting teachers for two years, supervising groups of rural schools and getting a first hand knowledge of the kind of schools and teachers this college serves. A number of the staff have now had further training in the Associateship course at the Institute of Education in London or at the University College of the Gold Coast, a course designed for experienced trained teachers who are not graduates.

The staff (including the principal) now numbers 15, 4 women and 11 men, including a trained carpentry master, an art and crafts specialist, an agriculture specialist, a PT specialist, and a housecraft specialist. In a number of Gold Coast colleges, school practice is the responsibility of certain 'method' masters, but in our case all the staff share in the supervision of school practice. Similarly, each tutor is responsible for teaching his or her subjects and for instructing the students in the methods of teaching these subjects.

A college is, of course, made or marred by its staff, and in the Methodist Training College we have been fortunate in being able to gather together a body of keen and experienced people, who have pulled together as a team. Much use has been made of regular staff meetings as a means of planning the work and of facing problems together. The principal has been greatly helped by the experience and advice of his African colleagues, and in the course of discussion the staff have learnt from each other and from the principal. An encouraging example of the way this policy has worked out concerns the question of admitting women students. It was first discussed in a staff meeting, and members of the staff themselves proposed that a building which was to have been used to provide improved staff accommodation should be used temporarily to house a class of women students.

AIMS AND PRINCIPLES OF THE COURSE

The Certificate B training college has been assigned a definite task in Gold Coast education—that of training rural primary school teachers within a period of two years. This new requirement meant that a new course of training was needed, and so educationists had a fresh opportunity to devise a course specially adapted to the needs of the Gold Coast, one that would break away from the rather 'bookish' tradition that has tended to cramp much previous work.

At the outset the aims of the Methodist Training College were defined as follows, and it has not been found necessary to alter these aims:

1. To consolidate the students' present knowledge, extending it at certain points only.
2. To try, as far as may be, to produce 'live' people, with zest and ability to go on learning.
3. To train teachers keen and able to tackle rural infant-junior school work, with a vision of what these schools may do to uplift the community; and to this end to give them the requisite professional skill.
4. Above all, to develop that Christian character that can alone provide the basis for such work.

In the working out of these aims, certain general principles have been followed.

The needs of individual students are considered as far as possible, and stress is laid upon treating each student as an individual and getting to know him intimately. Thus in addition to classroom contacts, each student comes directly under a housemaster or mistress (in groups of 15), with whom he meets weekly in a Church fellowship class. The college year begins with a Welcome Ceremony, at which each newcomer is welcomed individually, particulars being given of his home town, teaching experience, etc. At the Staff Meeting at the end of the term students' records are examined individually and attention is directed to points in both classwork and conduct that need attention. Such discussion may throw valuable light on a student's difficulties.

In accordance with this same principle the use of tutorial groups has been developed in some subjects. Since it soon became clear that weakness in English was holding back a number of our men, students are now taught English in groups. The 90 students in any particular year are divided between five tutors, the brightest group numbering about 25, the weakest only 10. This enables more attention to be given to the backward students, and the same system is followed in arithmetic. Tutorial groups are also organized in other subjects for the benefit of weaker students as required.

Another principle is to make all the training as practical as possible. All that the principal (who was a Supervisor of Schools for nine years) and his staff know about conditions in village schools is brought to bear on the work of the college. Thus the students are given practice in improvising local materials, e.g. in manufacturing distempers from local clays for the decoration of the school building. Again, in arithmetic, practical work in mensuration comes into the syllabus, and it is common to find that, just when the need for economy in the use of water is being stressed, the arithmetic tutor is busy measuring up the college rainwater storage tanks with his class. One further example: the college has prepared primary school syllabuses for most subjects, and these are issued to students and discussed with them.

In our aims the need for Christian training is stressed, and we believe that the spirit of the college owes much to the efforts that have been made to apply Christian principles to the ordering of our common life. Each day begins with prayers together, conducted by the tutors, during which the main passages of the Bible are covered by following the readings in the Oxford Little Bible, and in the evenings the students conduct their own prayers. On Sundays the students are engaged in various branches of Christian service, and the day concludes with worship in the college chapel.

CURRICULUM

The college time-table is a full one and the curriculum includes the following subjects: Agriculture and rural science (including hygiene and first aid), 5 periods a week; Apparatus making, 2 (second year only); Arithmetic, 2 or 3; Art and crafts, 4; Carpentry and building, 2 (men only); Needlework and housecraft, 4 (for women), 1 (for one year for men); Education, 3; Demonstration lessons, 2; English (including library reading), 4 or 5; Music, 2; PT and games, 4; Religion, 2; Vernacular, 4 or 5; World knowledge (history, geography and citizenship), 3 or 4; Community study and service, 2; Writing, 1 (first year only); Hobbies, Saturday morning. (Most periods are 40 minutes in length.)

The course is practically the same for men and women, except that women take housecraft and needlework and men take carpentry and building.

Particulars of some of the more distinctive features of our work follow.

Agriculture and rural science are given a prominent place in our course, and between 6 a.m and 7 a.m each morning the students are either on the farm or on the PT field. In agriculture the aim is to teach such improved methods as may be taught to children in school and to adults in the village. On the farm, training is given in the use of various crop rotations and in the preparation and application of green manure. Each student has certain plots of his own to look after, and during his two years he raises a variety of crops. He is also given instruction in the keeping of animals, the care of fruit trees, contouring to check erosion, etc. A number of former students have established farms of their own, in addition to running farms at their schools.

The grounds around the college buildings are the responsibility of the students, who keep the grass cut, plant and tend flowering and other shrubs, and look after flower beds around their houses. Particular attention has to be given to avoiding soil erosion, and students

are trained to keep all slopes under low grass (too often school compounds are denuded of all grass, so naturally erosion soon begins). This work on the grounds is done mainly on Friday afternoons, at which time other students are cleaning all the college buildings, cheerfully sweeping, scrubbing and polishing. All this work is organized on an inter-house basis, and there is keen competition for a trophy carved by the crafts master. It is well worth while to get the students to do this cleaning themselves and to insist on a high standard in it.

In art and crafts a varied programme is followed. Clay modelling, basketry, mat-making, bookbinding, weaving and wood-carving are crafts among which students make their choice. Wherever possible local clays, fibres, etc. are used. An exhibition is given at the annual end-of-year college celebrations, at which the best work produced during the year is exhibited. Group models suitable for the illustration of primary lessons are also included. The dining hall and students' houses are now decorated with mural paintings and friezes done by the students.

The art work includes the painting of posters to advertise school functions, and charts and pictures to illustrate lessons are produced. In the first year much attention is given to the teaching of lettering, for we have found that a mastery of lettering is essential to the teacher in many ways, particularly in the making of apparatus.

The preparation of teaching apparatus—especially for infants' reading and number work—is an important part of our work, for most of the students go out to poorly-equipped schools. This work used to be started in the first year, but is now postponed until the second year, when the students have a sufficient mastery of lettering, etc. At the end of each year the student has to exhibit his apparatus, and this is an incentive to him; in fact the quantity and quality of the work evoke very favourable comments from visitors.

Carpentry and building are not taught in many Certificate B colleges, for students are not required to teach these subjects, but we have included them as another means of encouraging our folk to be handymen and because most teachers have at some time or other to supervise the erection of school buildings and the making of furniture. In his second year each student makes a large apparatus box to hold his teaching apparatus. We have been much encouraged to hear of the work past students have done in decorating their classrooms, building incinerators, erecting temporary classrooms, and even in one case erecting his own temporary house.

In our work in education stress is laid on child study as the basis of all the students' work in the study of teaching methods and organization. To this end a child study questionnaire is sent to accepted candidates, so that they may start observing before com-

ing to college, and the first school practice consists largely of such observation. This emphasis on child study has had encouraging results in developing in the students the right approach to their teaching.

It is generally recognized nowadays that a teacher must be able to relate his teaching closely to the pupils' environment and to link the school with the community. To this end, the Methodist Training College uses various activities, chief among which are community study and service during the week and various forms of Christian service on Sundays.

Since the college was opened each class has gone down to Komenda once a week (or sometimes to the neighbouring village of Abrobeano) to help conduct a detailed social survey there. The object of this study is to interest the students in their local community: to teach them how to study it; to help them to see how much teaching material can be drawn from the locality; and to show them how to set about the improvement of the community. The survey has touched upon many aspects of the life of Komenda, including its history, layout, population and housing, form of government, occupations, health and hygiene, communications, education, religion and recreations. The sifting and collation of the findings has been a most useful exercise, and the results have been written up in a number of booklets, illustrated by maps, pictures, etc.

Community service has been linked with the study, for as the needs of the town have been revealed, efforts have been made, in collaboration with the council and people of Komenda, to meet these needs. Work has been done on the local school grounds and building, on improving roads and their drainage, on improving local water supplies, in the planting of shrubs, etc., and on adult literacy work. At times we have been discouraged by the lack of response from most of the townsfolk, but in spite of this we believe that the work has done good and has certainly been good training for the students.

On Sundays the students serve in Komenda and also in 13 villages within a six-mile radius of the college. Each student goes either to a particular village each week or is a member of one of three itinerant groups. In the villages the students help in conducting morning worship in the Methodist Churches, and then teach in Sunday Schools in the afternoons. Literacy work, both with adults and children who do not go to day school, is a feature of these Sunday Schools. In a number of the villages a student serves as a Red Cross worker, running a dispensary for the treatment of simple ailments and encouraging more serious cases to go to hospital. The itinerant groups—larger bodies of students—visit the villages in turn. One is a Preaching Band, which conducts open-air services. The second

is a Red Cross team, which helps in cleaning up the villages as well as in treating ailments and giving health talks. The third is a Dramatic Group, which dramatizes Bible stories in the vernacular and generally gives its performances in the open-air. (If a student is hesitant in teaching a class, our prescription is to draft him into this group—and it generally works!)

On certain occasions during the college year local folk come up to the college, and one such event is our end-of-year college celebrations, when outgoing students receive their Teachers' Certificates and an exhibition of the year's work is staged. Towards the end of the year also we hold an open-air service for the local Methodist congregations, and the quadrangle is thronged with a crowd of at least 600 people. Usually the Dramatic Group gives a play, and recently the story of the life of Christ has been received with keen and reverent attention.

In Gold Coast schools some use is made of the project method of teaching, and during 1951 a college project was carried out as a means of training the students in the use of this method. The last week of one term was devoted to this work, which was discussed first in a staff meeting and then with the students. The plan decided on was a study of the college in all its aspects—geography of the grounds, plant, animal and bird life, agriculture, the organization of the college, its finances, curriculum, etc.—and the students were divided into 10 groups, each under the leadership of a master. Good artists and penmen were shared amongst the groups. The first half of the week was spent in fieldwork and other investigations, and the second half in arranging and writing up the material and illustrating it by pictures, diagrams, maps, graphs, models, etc. Great keenness and industry were displayed by the students (and their tutors) and at the end of the week an exhibition was held of the work done. The results—in their range and quality—were a pleasant surprise to us all, and a visitor with a knowledge of various African territories said that he had seen nothing quite like this elsewhere.

SCHOOL PRACTICE

School practice occupies two or three weeks each term, and as far as possible all students are out on practice at the same time. Three different sets of schools are used:

1. In the first term students normally practise in Komenda and neighbouring villages, schools which (apart from Komenda) have few certificated teachers in them.
2. In the second term the students go to larger, well-staffed schools some little distance away.

3. At the beginning of the third term each student goes straight from his home to a school in his own language area.

By working in these various groups of schools students get both the opportunity to see what a good school should be like and also the chance to try to improve a more backward school. As far as possible students on school practice live in the villages where they are teaching.

In his final school practice the student goes as far as possible to the kind of school to which he will be posted, and he is judged not only by the teaching of certain lessons but by his whole response to his job. Can he sum up the needs of the village by using his Community Study knowledge? Can he make what apparatus is necessary? Improve the layout of the school compound? Get on the right terms with the staff and pupils of the school, and with their parents? and so on. His approach to the local Church is also watched and guided.

When the students return to college after this third term's school practice, each group makes a report to a college assembly of the work it has done, and the reports are often most interesting and encouraging. Already we are finding that first-year students are learning what is expected of them by hearing about the kind of work tackled by the second-year men. The most outstanding instance still remains that of two pioneer students who stimulated the community to finish their new school building, got the grounds cleared and laid out, equipped the classrooms with teaching apparatus they made, and put the whole school into working order—all within a period of three weeks.

CONCLUSION

The Methodist Training College, Komenda, is a comparatively young institution and it is too early yet to try to make any definitive assessment of the value of its work. Some things may, however, be said.

There was at first some misgiving about the idea of the two-year training college, but this course has now been assigned a central position in Gold Coast teacher training. This is due in part at least to the satisfactory work being done by the first products of the Certificate B colleges.

Visitors to our college have spoken appreciatively of the work we are trying to do here. They have commented on the keenness of staff and students, the quality and range of work displayed at the annual college celebrations, and the way in which links are being forged between the college and the area around it.

We have also endeavoured as far as possible to keep in touch with our past students, and have received some encouraging reports about them. In particular we were able to arrange for one of our staff to spend a term in 1951 visiting past students in the field; he brought back suggestions for the improvement of our work but found that in general we had been working on the right lines.

Already a strong college tradition has grown up, and particularly in a college where the student personnel changes so quickly, this is a great help to the staff. We held our first reunion and refresher course last year, and the spirit of the past students who attended and the news they were able to bring us about their work were an encouragement to us all.

This College has summed up its aims and ideals in its badge—the emblem of a city on a hill shedding forth rays of light and bearing the inscription *Bepow-so KurowHyeren* (A city set on a hill shines forth). Such is the ideal we cherish for the college and for its students, and we trust that we and they are not entirely unworthy of our high calling.

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PART III

RURAL TEACHER TRAINING IN INDIA

by E. A. PIRES

CHAPTER I

AIMS AND OBJECTIVES

To my mind there is no educational work of greater importance for the welfare of the Indian people than the preparation of teachers for the rural areas of the country. The vast majority of our people live in villages, where the standard of life is so low that the role of the rural teacher is not only that of an educator of the children who come to his school but also that of a torch-bearer to the entire rural population. Potentially, the rural teacher is the true creator of his people. But to what extent is he so in reality? What efforts are being made to prepare teachers who can effect a 'silent social revolution' in rural India—a revolution that will make the country safe for democracy, peace and happiness? These are among the most important of the questions that this report on rural teacher training in India will attempt to answer.

The preparation of any type of personnel needs to have clearly defined aims and objectives; and it is only in the light of such objectives that the work of teacher preparation that is actually going on can be assessed and its strong and weak points noted. I therefore propose to examine, in the light of the needs of the rural Indian population, the essential qualifications of a rural teacher, an examination which will throw light upon the aims and objectives of the preparation of rural teachers.

THE ROLE OF THE TEACHER VIS-A-VIS THE PUPIL

It is not so long ago since all that was expected of a rural teacher in a primary school was that he should be able to teach his pupils to read, to write and to count. Even today there are primary schools in the rural areas where the teachers are satisfied with imparting to their pupils a knowledge of the three R's. Little do such teachers realize that to be able to read, to write and to count is only one part of man's education, that literacy is just one of the means of education and that skill with figures is just one of the tools of social living. Then there are other teachers who think that in addition to literacy and skill with figures their pupils should acquire some knowledge of

history and geography; and they are satisfied with imparting this knowledge through set lessons in the prescribed textbooks. Some of them would add a little nature study to the curriculum, but again in the form of lessons to be learnt by rote. If the teaching of reading, writing, arithmetic, history, geography and nature study in this mechanical fashion were the only function of the village school, the preparation of the village teacher would be a simple and insignificant business, and he would need little or no special training. But the real goal of the village school in a country like ours is much bigger than this, and the real function of the village teacher is much more vital and significant.

Generally stated, the task of the village school, like that of the urban school, is to provide such educational experience as will prepare boys and girls for a more abundant life—physical, economic, social, moral and spiritual. The task of the village teacher, like that of the urban teacher, is to assist the children to grow and develop mentally, physically, morally and spiritually. What, then, distinguishes the village school from the city school, and the task of the village teacher in India from that of the urban teacher?

Broadly speaking, there are two distinguishing elements. One is the need to relate the education of the village child to his rural environment, within which it must prepare him to live effectively. The younger generation of villagers must be taught the occupation of their parents and the crafts of the locality. They must be made to realize the importance of more and better food. They must be taught to spin and weave and tailor, so that they can employ their leisure usefully and make at least a part of their own clothes. They must be taught to have clean, cheerful and comfortable and yet simple and cheap houses with an abundance of sunshine and fresh air and a proper drainage of waste water. They must be impressed with the need of beautifying their homes with gardens. Besides these material values, they must also be taught the extremely important lessons of thrift and self-sufficiency on the one hand, and of co-operation and service on the other. To achieve all these values, it is extremely important to make the village schools rural in tone and the village teachers rural-minded.

THE ROLE OF THE TEACHER VIS-A-VIS THE COMMUNITY

The second factor that distinguishes the village school and the village teacher from their urban counterparts is the nature and extent of the contribution they have to make to the entire life of the community. The social and economic distress of the villagers consequent on the country's industrial development and the

uprooting of cottage industries is pathetic, and the teachers should be able to bring a message that cottage industries can be restored and that an adjustment between them and large-scale industries is possible. The disastrous havoc wrought by disease in the villages of India needs no telling, and the medical facilities available are so inadequate that the village teacher has an important role to play in rural health and sanitation. Though not a doctor himself, he can make a valuable contribution in the way of simple first aid and relief, and one yet more precious by creating among the villagers a desire to prevent disease. Finally in most villages the people have little variety and fun to break the monotonous drudgery of their lives. The teacher who realizes the value of recreation in giving joy to life and in promoting friendly social contacts among the villagers cannot afford to lose the opportunity of fostering it.

As agricultural and rural education are interdependent, the village teacher and his school should be an important channel through which suggestions for the improvement of agriculture can flow. Of course, the villagers, in their turn, must have faith in the school and support it. There are three main steps in the improvement of agriculture which should become the concern of every rural teacher. These are: the improvement of the soil, the improvement of livestock, and increasing the yield of the crops. The teacher who is well-informed in these subjects can not only acquaint his older pupils with some of the requirements and opportunities in agriculture as an occupation, but he can also help their fathers to farm more successfully.

One of the most important needs of rural India today is the need for co-operation and self-help. The yoke of rural indebtedness is so heavy that it creates a feeling of despair among the villagers and stands in the way of rural welfare. Unless the teacher is acquainted with the reasons for it, chief among which are crop failures, falls in the prices of farm produce, changes in the rural standard of living, gambling and speculation, high expenditure on weddings, funerals, and other ceremonial duties, litigation, and usurious moneylenders, he will not be able to help the villagers as he should in managing their affairs wisely. Improvement in the economic status of villagers is largely a matter of co-operation. The members of a co-operative society do not merely gain financially, they get a practical schooling in the benefits of thrift, industry, honesty and loyalty. Help in the organization and management of co-operative societies becomes, then, another important function of the village teacher. But the most valuable thing that anyone can do in a village is to lead its people to help themselves actively by their own progress. What is done for them by others is likely to be superficial and short-lived; what they do for themselves will be deep-rooted and lasting. Here again the teacher has a role as a guide and friend.

The village teacher, in sum, must also be a teacher of the adult village community, endeavouring to spread useful knowledge on agriculture, industries (in particular, cottage industries), public health, co-operation and so on. This does not mean that he has got to be a walking encyclopædia. What it does mean is that the school as a co-operative body of teachers and older pupils should be a live community centre for the whole village, radiating light and happiness all around. The reform of village life and of rural education depends upon securing the right kind of teachers who are purposeful and resourceful, who are imbued with the spirit of service, who possess minds that are awake and growing, and who have been adequately prepared for rural teaching and rural uplift. It is the task of the institutions engaged in teacher education to select and to prepare such teachers for work in the rural schools.

A SUMMING-UP OF OBJECTIVES

One of the finest statements of the objectives of teacher training for the rural schools of India has been given by Mason Olcott whose book, *Village Schools in India* has had a great influence. This statement[1] will serve as a basis for evaluating the actual programmes of rural teacher training that have been developed in India in recent years.

'1. The training school should seek to reach the general aim of education; to help every future teacher become, not an aimless machine, but a purposeful human being: (a) whole-heartedly participating in real life, even while in training; (b) developing his whole personality—body, mind and spirit—his feeling, thinking and willing; (c) open-mindedly seeking impartial evidence and actually solving problems, instead of blindly absorbing irrational beliefs.

'2. The training school exists to help every future teacher to share with his pupils moral character and good citizenship, including: (a) firm integrity, courageous conviction and emotional stability; (b) responsible co-operation with others in fostering goodwill and social progress in the family, the school, the nation and mankind; (c) vital appreciation of the best of India's rich heritage and history and of the noblest characters of this and other lands; and (d) enrichment of the higher life.

'3. The training institution is to assist all its students to master the fine art of teaching so that their future pupils will learn thoroughly and quickly. This involves on the part of the prospective teacher:

[1] Mason Olcott, *Better Village Schools*, YMCA Publishing House, Calcutta, 1943, pp. 160–61.

(a) comprehension of useful books and application of their relevant ideas to daily problems; (b) broad knowledge and understanding of life; (c) clear expression of thought in fluent and correct speech and writing in the mother tongue; (d) sympathetic understanding of child nature; and (e) practical mastery of the most suitable and interesting methods of teaching children and imparting to them desirable habits, attitudes and information.

'4. The school should enable its students to enjoy sound health and physical recreation and to impart these to their future pupils, including: (a) soundly growing, well controlled bodies with the habits and knowledge needed for increasing vitality and disease resistance; (b) deep responsibility for school and village sanitation and for health publicity; (c) long familiarity with suitable games, folk dances and drills; (d) ability to use leisure time wisely for refreshment, culture, and cultivating a taste for good music, drama and art.

'5. The institution is to aid all its students to grow in practical skill and understanding and the facility to give to others: (a) skill in number and space work useful to the villager and the teachers; (b) appreciative understanding of the natural environment, and of agriculture, pasturage and handicrafts; (c) skill in using ordinary tools and methods and knowledge concerning them, so as to develop children's individual aptitudes; (d) practical ability in wisely purchasing and using common goods; and (e) ability to protect the villagers from exploitation.'

CHAPTER II

PRESENT ORGANIZATION

In the light of this discussion of the objectives of rural teacher training, we can now examine the provision for their realization in the programmes available in India today. Broadly speaking, there are three kinds of teacher education institutions. There are, first, institutions preparing teachers for primary and middle schools; secondly, institutions preparing teachers for the secondary and higher secondary schools; and thirdly, there are the comparatively new institutions preparing teachers for the new basic schools. Basic training schools are rapidly replacing the older traditional training institutions, but since both types exist and both provide teachers for the rural schools primarily, it is necessary to consider the two. Little need be said of the institutions preparing teachers for secondary and higher secondary schools, as these have little or no rural bias.

INSTITUTIONS OF THE TRADITIONAL TYPE

The institutions of the traditional type may be sub-classified according as they prepare teachers for the primary or for the middle grades. Although the two require of candidates slightly different minimum qualifications for admission, their courses are basically the same; and so we shall consider them together. They generally prescribe a two years' course but when teachers are very scarce they are sometimes satisfied with a single year.

A Typical Curriculum

The curricula differ from state to state for in some states there has been a keener realization than in others that primary and middle school teachers, if only because the vast majority of them will be teaching in rural schools, need to be more rural-minded. The courses in the Punjab for the Junior Teacher's Certificate and the Senior Teacher's Certificate examinations respectively, which are typical, are summarized below.

For the Junior Teacher's Certificate, there are six written papers:

Paper I: A modern Indian language (Urdu, Hindi or Punjabi); Paper II: Methods of teaching arithmetic and language; Paper III: Methods of teaching general knowledge, civics and everyday science; Paper IV: Class management; Paper V: General principles of Teaching and Educational Psychology; Paper VI: Hindi or Punjabi.

Besides these written papers, the teachers in training have to do practical and oral work in the following: Language; Geography and agriculture and everyday science; Practice of teaching; Handicrafts (students are expected to offer one handicraft from each of the two following groups: *Group I:* Woodwork, clay modelling, bookbinding, weaving, poultry farming, drawing and sketching; *Group II:* Brick making, basket making, mat weaving, cardboard modelling, soap making, ink making, calico printing); Physical training, first aid and junior boy scouts.

The course for the Senior Teacher's Certificate follows more or less the same lines, but is naturally more advanced. The principal differences are: (a) In Paper II the course includes the methods of teaching algebra and geometry. (b) In Paper IV the syllabus emphasizes school organization more than class management. (c) For the practical work in handicrafts students must offer any two of the following (the work expected will be more advanced and oriented to teaching in middle schools): Pottery, masonry, leatherwork, metalwork, dyeing, preservation of fruit and vegetables, weaving, rope making, tat (rug) making, silkworm rearing, dairying, bee-keeping.

The corresponding courses for women teachers are slightly different. For the Junior Teacher's Certificate for women there are nine written papers: Paper I: A modern Indian language (Urdu, or Hindi or Punjabi); Paper II: Methods of teaching a modern Indian language; Paper III: General principles of teaching; Paper IV: Class management; Paper V: Methods of teaching arithmetic and elementary geometry; Paper VI: Methods of teaching history, geography and civics; Paper VII: Methods of teaching everyday science; Paper VIII: Practical arts and methods of teaching them; Paper IX: A second language (Urdu, Hindi, Punjabi or Persian).

Beside these written papers the teachers in training have to do oral and practical work in the following: Language (oral test, précis and teaching aids); A survey of home-making activities; Geography and everyday science; Practice of teaching; Handicrafts (needle-work and two other handicrafts, one from each of the following two groups: *Group I:* Poultry keeping, *nawar* (or broad tape) weaving, basket making and mat weaving, bookbinding, simple leatherwork, cane-work, silkworm rearing, bee-keeping; *Group II:* Drawing, pottery, soap making, ink making, paper making and papier mâché,

cardboard modelling, making sun-dried bricks, block printing); Training for physical welfare, first aid and junior girl guides; Extra-mural activity (one of the following: Adult literacy work, Indian instrumental music or singing, welfare work—children's or women's welfare, drawing and painting).

The course for the Senior Teacher's Certificate for Women follows more or less the same pattern, although the studies are related to work in middle schools. The main points of difference are: (a) The syllabus in the paper corresponding to Paper IV emphasizes school organization more than class management. (b) Instead of the four method papers (Papers V–VIII) which a candidate has to offer for the Junior Teacher's Certificate examination, she has to offer the following: (i) Methods of teaching arithmetic *or* Methods of teaching history, geography and civics; (ii) Methods of teaching any *two* of the following: Everyday science, Practical arts, a classical language. (c) Instead of training in junior, she receives training in senior girl guides. (d) For her handicrafts, the candidate preparing for the Senior Teacher's Certificate has to offer needlework plus two of the following: pottery, basket making, leatherwork, dyeing, weaving of chicks and fans *or* badminton nets *or sota* (golden or leather lace), tat (rug) making, silkworm rearing, poultry keeping, bee-keeping, preservation of fruit and vegetables, flower and vegetable gardening.

The courses outlined above, which are available to rural teachers in the Punjab, are indicative of an attempt, more or less common throughout India, to provide some rural and practical bias to the preparation of teachers for the primary and middle schools. The question we have to ask is whether this bias is adequate for the attainment of the objectives discussed earlier. To answer it we need to study the prescribed syllabuses in some detail, as the outlines above do not tell us much except for the large choice of crafts, which is, however, not common in similar courses in other states.

Craft Subjects and Rural Needs

Let us, therefore, first review the position of the crafts in the curricula of teacher training institutions, specially those preparing teachers for rural work. It will be noticed that agriculture does not figure in any of the Punjab lists of crafts, though it forms part (along with geography and everyday science) of one of the practical courses for men for both the Junior and the Senior Teacher's Certificate. One would have wished to see it given a much more important place in the preparation of rural teachers. In a stimulating book on *Education and Village Improvement*, Mr. I. W. Moomaw, who was for several years principal of the Vocational Training School at Ankleswar in

the Broach District, maintains that 'one of the most essential steps in rural progress is adequate instruction in agriculture in all village schools'.[1] This means that the village teacher 'needs a wide knowledge of agriculture and village crafts so that he can relate his service in the school to the daily life of the people',[2] and so that the school may become 'an institution for the improvement of agriculture and rural life as well as for teaching'.[3] The preparation of rural teachers, therefore, cannot be regarded as complete unless it provides for an adequate study of elementary agriculture and gardening. An adequate syllabus in this subject, to my mind, is the one prescribed for the Trained Teachers Certificate examination (Primary Grade) of Madhya Pradesh.[4] The course is divided into four parts: General principles of agriculture and gardening; Plant life; Insect pests; Care of animals. The aims set out are:

1. To teach the dignity of labour and cultivate a taste for beautifying the school and the home.
2. To develop a habit of accurate and patient observation as opposed to hasty deductions.
3. To develop an intelligent and active interest in the main occupation of the rural population.
4. To equip the teacher with the knowledge and practice necessary for teaching the subject in vernacular schools.
5. To give the teacher the necessary background for rural reconstruction work and develop the habit of reading literature on agriculture.

These are high aims, indeed; but they are capable of attainment if the training institution attaches the necessary importance to the teaching of agriculture and devotes adequate time to practical work. Some states in India—for example, Hyderabad—feel that it is not possible for teachers in training to study agriculture side by side with the other requirements of the course, so a special additional one-year course in agriculture is provided. In several states there is provision in the training course for gardening but not for agriculture.

An incongruity in the Punjab lists of crafts is the provision of weaving for men but not for women teachers. Weaving, together with spinning, is one of the most popular and most important basic crafts. Both are given the greatest prominence in the basic education now generally accepted as the coming form of primary education. Yet there are traditional training institutions in many of the Indian states where neither is practised as a craft. A simple syllabus in

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[1] I. W. Moomaw, *Education and Village Improvement*, Oxford University Press, 1940, p. 30.
[2] ibid., p. 20.
[3] ibid., p. 94.
[4] See Appendix I.

spinning and weaving like the one in use in the Madhya Bharat primary training institutions can quite well serve as a guide.[1]

Woodwork, too, is absent from the two lists of crafts for the Teachers' Certificate examinations in the Punjab, and gets little better treatment elsewhere outside basic training institutions. The reason is that it is not generally included in the rural school syllabus. Yet of all crafts, woodwork is the most suitable pre-vocational subject in schools. It fosters creativity and affords opportunities for the development of the aesthetic sense; boys who are trained in it can find innumerable uses for it in their village homes or as a cottage industry subsidiary to agriculture. Toy making could be a useful form of woodwork in rural schools. With the encouraging lead given by basic schools, woodwork—together with equally neglected metalwork—should take its rightful place in the curricula of all institutions preparing rural teachers. The Madhya Bharat Education Department has evolved a good, useful syllabus for use in the primary training institutions in that state.[2]

Another important cottage occupation that finds a place in the Punjab courses for teachers is leatherwork; but this is not at all a popular activity even in basic teacher training institutions. The reason is that mainly it has hitherto been a vocation followed by people of a low caste. Perhaps the best way of removing the prejudice against it would to be encourage its introduction into the curricula of teacher training institutions. If the example set by the Punjab and a few other states were to be followed, this purpose could be realized.

A number of other characteristically rural occupations which have been included in the courses for teachers in the Punjab, do not find the same favour in other parts of India. There is provision in the Punjab courses for practical work in poultry farming, dairying, bee-keeping, and silkworm rearing. These are all occupations that can bring a subsidiary income to the farmer, and need to be further popularized through the village school.

Other useful rural handicrafts provided for student teachers in the Punjab are basket making, mat weaving, *tat* (rug) making, and rope making; also pottery and brick making. The primary training schools in Bengal provide for the making of useful articles in bamboo, jute, cane and straw. One or other of the above-mentioned rural handicrafts are generally taught in training schools for primary teachers, depending upon the availability of the necessary materials.

Most training institutions for primary teachers include what is called handwork or manual training. It generally includes the following activities: paper work (including the making of artificial

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[1] See Appendix II.

[2] See Appendix III.

flowers and paper decorations), papier mâché, cardboard modelling, clay work, and needlework for women (including the making of cloth toys). In some cases, the cardboard work leads up to book-binding. Very often, the handwork course is directed towards the preparation of visual aids for teaching, in particular, the teaching of the social studies. Very often, too, the course in handwork is coupled with a course in art, including drawing, sketching and sometimes painting; and a very common aim of the course is to help the teacher to develop some skill in the illustration of his lessons. The following statement in the syllabus for handwork and art prescribed for the Primary Teacher's Certificate examination of Madhya Pradesh indicates the standard that is expected of a pupil teacher in this course:

1. Students should be able to illustrate both on paper and on the blackboard. The test must include work on the blackboard with a time limit.
2. Students must show ability to prepare apparatus that will assist in achieving the aims of the syllabus prescribed for primary schools in this state. The work of a student during the year should cover all subjects prescribed for primary schools. Marks will be awarded in proportion to (a) the variety of the preparations; (b) the pedagogical value of the apparatus in relation to the prescribed aims; (c) finish and accuracy; (d) originality.
3. The practical test in clay, paper, cardboard and rural handwork and needlework (for women) should aim at assessing the student's skill in preparing specimens of such work in relation to the work to be done by children in primary schools. It should also test the student's ability to do such work in a reasonable time, i.e. equivalent to the time to be taken in demonstrating the manufacture of such articles to children during a 40-minute lesson.

The Punjab syllabuses in handicrafts for teacher training institutions also include the following industrial arts: soap making, ink making, calico printing, dyeing, and fruit and vegetable preservation. These are all useful cottage industries for village children to know, and should be encouraged in all teacher training institutions. They can be quickly mastered as they do not require much skill.

Training institutions for the preparation of women teachers generally provide for some sort of a course in domestic science. The contents of this course vary from place to place. In some institutions, all the emphasis is on the provision and preparation of food, in which case the course tends to neglect other important aspects of domestic science, such as needlework, laundry work, household decoration, care of young children and home nursing. The Punjab course for the Junior Teacher's Certificate for women requires the pupil teachers to make 'a survey of home-making activities in a small

group of houses with which they are familiar'. The syllabus in civics for this course includes 'use of home life as the basis for school lessons: the needs of family shelter, clothing, food and community life'. This is supplemented by the syllabus in hygiene which includes, among other items, a study of the importance of a balanced diet, simple methods of cooking food, the formation of good eating habits in children, the avoidance of harmful foods, the injurious effects of smoking, opium and intoxicants, the necessity of clothing suited to the season, and the formation of habits of cleanliness in children. It is significant that this course also includes simple mechanical knowledge, such as a knowledge of the working of the hand pump, the sewing machine, and other simple house and garden tools as well as a knowledge of simple precautions in the use of electricity in the home (although the latter will be of little immediate use to village teachers because of the absence of electricity). The syllabus in everyday science in the corresponding course for the Senior Teacher's Certificate for women includes the methods of teaching cooking, laundry, mothercraft, home nursing, first aid, hygiene and physiology. There is provision also for practical work in these domestic activities. In the state of Madhya Pradesh the syllabus in domestic science prescribed for women student teachers preparing for the Primary Teacher's Certificate includes the hygiene of the home and of the kitchen, the dietetic value of foodstuffs, kitchen economy, the choice and care of clothes, child welfare in all its aspects and at different stages, elementary home nursing and the home garden. The course aims at giving the student 'practical knowledge on a scientific basis with regard to the care of the home and the child', 'a practical idea of home craft as prescribed in the syllabus for primary schools in the state', and training in 'practical judgment, self-reliance and initiative'. This means that the students are expected to 'show familiarity not only with the principles involved but also with the pratical work connected with the allied topics'. The pratical work done by a student during the year is, therefore, carefully considered and marks are reserved for this purpose from the total for this subject.

Academic Studies and Rural Needs

Let us now consider what rural bias is provided in the academic studies obtaining in the non-basic teacher training institutions.

There is a considerable scope for the introduction of a rural bias in the social studies, and yet an examination of the syllabuses of teacher training institutions in different parts of the country shows little effort in this direction. In the study of history, it is possible to emphasize the significance of local history and to utilize legends and

folk tales. The history syllabus for the Punjab Junior Teacher's Certificate for women does this, as does that for the Junior Teacher's Certificate examination of Himachal Pradesh, which includes stories from history planned round local sites and local festivals. In the study of geography and civics, however, there appears to be a greater and a more widespread attempt to relate the studies to the rural environment of the teachers undergoing training. Provision is often made in the syllabus for a study both of the village and of the neighbourhood of the school, with special reference to agriculture, occupations and social conditions. The aim is to form the habit of analysing village conditions as they exist and to infuse enthusiasm for rural reconstruction. Another aim is to help teachers guide children in the observation of local geographical phenomena. If there is provision for a course in administration, it is possible to include a study of the village *panchayat* and its powers, duties, election and advantages, as is done in Madhya Bharat.

The courses in hygiene and everyday science also lend themselves to the introduction of a local and rural bias in the theoretical studies and the practical activities of student teachers. But whereas some provision is made for theoretical studies, there is little provision for useful and educative practical activities in this field. Several courses emphasize the duties of the village school teacher in the matter of the physical health of his pupils. They also stress the necessity of good sanitation in the village, drawing the student teachers' attention to the need for a good and clean water supply, proper drainage and disposal of waste, cleanliness of roads and pathways, and, most of all, to the proper arrangements for latrines and for training in their right use. A good syllabus in rural hygiene and sanitation is that prescribed in Bengal for primary training schools.[1]

Nature study is included as a subject in several courses for the training of primary teachers; and in many places the study is related to the immediate environment of the student teacher. The Himachal Pradesh syllabus in this subject requires that the student teachers in the junior teachers' classes 'maintain a "nature diary" of birds, animals, insects, wild flowers, weather-notes, etc.'. So does the syllabus for primary training schools in West Bengal and that for the Teacher's Certificate examination in Orissa. The syllabuses of many other training institutions, however, give no indication of any such systematic practical activity.

In some states a composite subject called everyday science is offered instead of separate subjects such as nature study or agriculture. The Punjab is one such state. In the syllabus for the Senior Teacher's Certificate examination it is laid down that 'during the courses

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[1] See Appendix IV.

of training the main emphasis in the subject will be on practical work' and that the student will 'learn the method of teaching chiefly through his own practical work in the subject'. The study of everyday science is to be correlated with the study of other subjects, chiefly geography and rural reconstruction.

In several courses for primary teachers in India a subject called rural knowledge or rural science is included. In Bengal, it is divided into two parts: (a) rural hygiene and sanitation; and (b) rural economics and welfare,[1] and practical work is enjoined, including some form of village service. In Madhya Pradesh, where it is called rural reconstruction, the syllabus includes: (a) health; (b) economics; (c) animal husbandry; (d) improved methods of cultivation; and (e) social education. As part of the practical work, the student teachers are required to select one of the villages in the surrounding area and to make a careful survey of it—social, sanitary and economic.[2] The purpose of the study is (a) to give the student teachers practical experience of village conditions as they exist and their effect on the village community and the nation; (b) to give them a knowledge of the ways and means necessary for improving village life; and (c) to provide opportunities for practical work related to rural reconstruction by correlating their general activities with the course in rural reconstruction.

Extra-curricular Activities

Most training institutions for primary teachers have some organization of extra-curricular activities. In some states, the syllabus in school organization includes a study of the extra-curricular activities considered most appropriate for rural institutions. In the Punjab syllabuses, besides the usual forms of extra-curricular activities like debating, dramatics, music, art, games and tournaments there is provision for the following activities specially suited to the rural areas: naturalists' club, young farmers' club, excursions club, village games club, co-operative society, scouting and guiding, and community welfare.

An attempt is slowly being made, especially under the influence of basic education centres, to make teacher training institutions in rural areas centres of community life for the villages around. In some training institutions which today prepare teachers for both basic and non-basic schools, not only is there a provision for a systematic study of the problems and methods of social education and rural

[1] For the syllabus in rural economics and welfare, see Appendix V.

[2] Appendix VI gives the heads under which the survey is conducted and the detailed information sought.

welfare, but also a more intense corporate life and a greater achievement in the field of rural welfare work. More and more is it being realized even in the traditional type of training institutions, that the preparation of teachers for rural schools should proceed on the lines of the preparation in the newer basic training institutions. A study of the principles of basic education is included in the syllabuses of many of the traditional teacher training schools, and the measures employed in basic training institutions to make teachers more rural-minded and to prepare them for rural reconstruction work are being increasingly employed there.

BASIC EDUCATION

We are now ready to study the significance of basic education, and to review the contribution of basic training institutions to the preparation of adequately qualified teachers for work in the rural areas.

The Theory of Basic Education

The central proposition in basic education theory is that all education, especially primary education, extending over a period of seven years or longer should be centred round a basic craft. To use the words of Mahatma Gandhi its originator: 'The principal idea is to impart the whole education of the body and the mind and the soul through the handicraft that is taught to the children. You have to draw out all that is in the child through teaching all the processes of the handicraft, and all your lessons in history, geography, arithmetic will be related to the craft.' Although Gandhi started with this fundamental idea of correlating all teaching to the craft, the proponents of basic education admit two other important centres of correlation, namely, the physical and the social environment of the child.

There are several reasons why education imparted through the medium of a craft is more valuable than education imparted through books and formal class lessons. First of all, it is psychologically sound because it is based on the principle of activity. The children are saved from the tyranny of purely academic and theoretical instruction. Instead, the intellectual elements in their experiences are balanced by the practical, so that the knowledge acquired is not only more concrete and real, but also more effective in their lives. Besides, the activities of the basic school are not activities introduced merely for the sake of activity. They are real, serious, life activities,

which set problems for the growing child and place the burden of solution on his imagination, his thinking, his emotions and his will—in short his entire developing personality. Drawing, as they do, on all the faculties in a correlated way, they make for integration in his education. Then, craft-centred education has the social value of making the child feel that he is an integral part of a co-operative community, to whose wealth he is contributing his quota. It gives him self-respect to know that he is able to pay for part, if not all, of his education, and the fact that he does is a big step forward in the solution of the problem of making education universal and compulsory. This economic aspect of the training was vigorously stressed by Gandhi who considered it fundamental to the philosophy and the social outlook underlying the basic system of education. 'Given the right kind of teachers', he says, 'our children will be taught the dignity of labour and learn to regard it as an integral part and a means of their training.' He conceives of education through the medium of handicrafts as 'the spearhead of a silent social revolution fraught with the most far-reaching consequences'. Some of these consequences are: a healthy and moral basis of relationship between the city and the village; eradication of the worst evils of the present social insecurity and poisoned relationship between the classes; and a more just social order wherein everyone is assured of a living wage and the right to freedom. To sum up, the ultimate objective of basic education is not only a balanced and integrated personality but also a wholesome and harmonious society. In the development of such a society, the school becomes an instrument of social and economic change, and the teachers and bigger pupils play a large and effective part in programmes of social and economic welfare.

The Aims of Teacher Training for Basic Education

The aims of teacher training in *Nai Talim* or the new system of basic education, have been admirably stated in the *Revised Syllabus for the Training of Teachers*. They are:

1. To give the student-teachers practical experience of the life of a community based on co-operative work for the common good.
2. To help them to understand and accept the social objectives of *Nai Talim*, and the implications of a new social order based on truth and non-violence.
3. To encourage the development of all the faculties, physical, intellectual, aesthetic, and spiritual, of each student-teacher towards the achievement of a well-integrated harmoniously balanced personality.

4. To equip the student-teacher professionally for his work, i.e., to enable him to understand and meet the physical, intellectual and emotional needs of children.[1]

It has now become an accepted policy that a basic training centre, which usually consists of a training institution working with a practising basic school, should be organized as a democratic community based on co-operative work. 'The community should produce by its own labour as much as possible of its own food and clothing, and should possess in itself the means for a proper cultural life. It should be situated in a rural area and be in close touch with the surrounding villages; it should develop into a natural centre for the life of the locality and for programmes of rural reconstruction.'[2] Most basic training centres have been organized on these lines and have developed into real democratic communities. In some cases, instead of a single basic school being attached to a training institution, there is a whole compact area of basic schools of which the training school forms the educational centre. In such cases the responsibility of the training school becomes greatly enlarged, and it becomes necessary to develop each basic school in the area as a community centre. An interesting development in some parts of the country is the attempt to make the basic education centre the focus of all development agencies, both governmental and private. If the idea becomes generally accepted, it will soon become possible for basic education centres to obtain the full co-operation and support of the officers of the health, agriculture, co-operative, public works and other departments of the state governments so that the work of rural reconstruction becomes a highly co-ordinated and effective effort.

Broadly, it may be said that the course of studies in a basic training school centres round (a) the activities of the school community, such as the preparation of food, the production of cloth, health and hygiene, and programmes of rural and cultural activities, and (b) the professional aspect of the training. The student teachers are expected to acquire skills in the various activities, including craftwork, during the course of training which, as a rule, extends to two years. This means regular and systematic practice. Moreover, they are expected also to acquire the correlated knowledge as well as the ability to transmit it. In basic training schools, just as in basic schools, the principle of learning by doing and the principle of correlated teaching are put into practice, with the result that a satisfactory balance of work and study is achieved.

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[1] *Revised Syllabus for the Training of Teachers*, Hindustani Talimi Sangh, Sevagram, Wardha, pp. 8–9.

[2] ibid., p. 9.

The Basic Training School Programme

Let us begin by seeing how the principle of 'learning by doing' is applied in basic training schools. In the first place, the trainees are expected to develop an understanding of the social objectives of education and the ideal of citizenship embodied therein. They are expected to understand how a democratic community is organized and what discipline means in a co-operative activity. For this reason, the community life of the training school itself is organized on the basis of a democratic society engaged in co-operative work that is productive and that contributes to the maintenance of the community; which explains why it is imperative that basic training schools should be residential, as most of them are. The principle of self-sufficiency, therefore, has two connotations in respect of basic training schools; one, that the trainees should be able, through their co-operative efforts, to provide for most of their food, clothing and other expenses; and the second, that they should be self-sufficient also with regard to their other basic needs—for health and recreation, and for cultural, spiritual and social development. 'It means that every member of the community should do his bit to run the community efficiently. Active participation in all community activities from the cleanliness of the school premises to the preparation and serving of food becomes obligatory. Such continued participation develops a progressive self-reliance in all aspects for a healthy and balanced life. The programme thus includes the performance of all kinds of service required by the community. It has been found that children who study community problems and the resources available for their solution have an exciting motive for learning.'[1]

The programme of community training and cultural activities prescribed for basic training schools in Madras consists of: (a) democratic living, including sanitation, care of buildings and compound, preparation of food, kitchen, and gardening; (b) social service to the villages in the vicinity, specially with regard to their sanitation and health, their social life, their cultural life, and adult education; (c) celebration of festivals; (d) school journeys; (e) music, including organization of school choruses, orchestras and percussion bands; (f) dance and dramatics; (g) drawing, painting, decoration and other arts; (h) study of Hindustani.[2]

The organizational aspect of 'democratic living' in basic training institutions is worth noting. In most institutions the 'cabinet' system is in operation. For example, at Loni, near Poona, in the Bombay State, the activities of the basic training centre are divided

[1] *Scheme and Syllabus for the Basic Training School Leaving Certificate Examination, Madras*, 1952, p. 4.

[2] For details of the programme, see Appendix VII.

into 24 departments, each department being looked after by a minister elected from the community. The duties assigned to some of these ministers will indicate how the division of work has been assigned.

'The Prime Minister chalks out the policy of the work to be carried out during the month in consultation with other cabinet members. He looks after guests and visitors, and explains to them the working of the institution.' 'The Supply Minister supplies all the articles required for the mess. He purchases the ration for the community and distributes the same to all the members. He also keeps the accounts.' 'The Health Minister looks after the sick members and gives medical aid to them under the guidance of the Medical Officer. He looks after the storing of drinking water.'

Other important ministers in the cabinet at Loni are the Minister for *Safai* (cleanliness), the Minister for Agriculture, the Cultural Minister, and the Minister for Social Education. The last-named conducts the social education centres in the neighbouring villages and deputes trainees to look after them in turn. At the end of every month there is a meeting of all the community members and the various ministers present their reports to the assembly for approval. The ministers report the difficulties experienced by them in executing their duties and the means utilized to overcome them. They also give suggestions and instructions to the next ministers. A free discussion takes place and the reports are finally accepted or rejected by taking the sense of the community. If the assembly members take objection to some aspects of the report, the minister concerned is required to revise the report and to place it again before the next session of the assembly for approval. By the end of the month a fresh cabinet is elected for the following month.

A special note must be made of the provision for social service in basic training schools. This is one important respect in which the basic training schools are definitely superior to the traditional teacher education institutions. One of the objects of basic education is to create a new social order in which the existing gap between the home and the school, between the village and the educational community, is to be bridged by means of a close and healthy village contact. Hence it is necessary that the basic training institution should become the centre of all the village activities. Social service is, therefore, regarded as an essential aspect of the work. In many centres, as, for example, at Bikram in Bihar, a regular programme of social service is drawn up for the benefit of student teachers and it is assiduously followed.[1] Social service in the basic training schools in the Punjab comprises the following work in neighbouring *mohallas* and villages: (a) improvement in sanitation; (b) adult

[1] See Appendix VIII.

literacy campaign; (c) distribution of medicines; (d) celebration of festivals; (e) improvement of agriculture and cottage industries; (f) work at fairs; and (g) organization of games and other recreational activities.

Another instance of the application of the principle of 'learning by doing' in the preparation of basic teachers is to be found in the area of productive activities. Every basic training school is expected to select one or more productive activities which fulfil man's primary needs such as food, clothing and shelter. Thus agriculture, spinning and weaving, carpentry and other crafts occupy an important place in the basic scheme of education. All such activities which involve manual work are organized and conducted on scientific lines with a view to exploring the educational possibilities in each. The farm, the workshop and the loom are considered as opportunities for experimenting with a view to securing a knowledge of the why and the wherefore of every process. Manual activity is considered necessary not only because of its productive potentiality but also because of its merit in instilling the sense of the dignity of labour so essential in the basically rural Indian culture, while great emphasis is placed on self-help.

One of the most remarkable examples of self-help in agriculture which the author of this report has come across was at the Basic Education Centre at Loni. The centre did not have enough water for the land it cultivated, so the student teachers and the staff resolved to dig a new well at a site suggested by a water diviner. They divided themselves into three teams, the principal himself working with all three to keep up their enthusiasm. For the initial work, the centre borrowed Rs.3,000 from the Mahatma Gandhi Co-operative Society which it is running for the benefit of the staff and the students. After working up to a depth of 4 feet, the party came across a huge rock which they had to blow up, before they reached a layer of soft earth. Digging another 10 feet or so, they got a beautiful well some 21 feet deep and 27 feet in diameter, sufficiently big to be used even for swimming. According to the Public Works Department the well was worth Rs.8,000, but it had cost the centre only Rs.2,500. A villager who lent his pumping set for drawing the water from the well when it was being constructed was only one of many whom the enthusiasm of the members of the centre led to co-operate.

Emphasis on Vocational Subjects

A wide variety of crafts have been adopted in basic training institutions in the country. In some states, the choice is restricted to agriculture, spinning and weaving, and woodwork, with an

occasional school offering an option like metalwork or oil pressing or *gur* (jaggery) manufacture. In the basic training schools in Bombay, each teacher is expected to receive training in the elementary process of spinning and its allied processes, in kitchen gardening and in cardboard modelling. In addition, he must have training in the further stages of spinning and weaving or agriculture, or woodwork. In the Punjab, besides the two compulsory crafts, agriculture and gardening, and spinning and weaving, one or two of the following optional crafts may be chosen: marbled paper making and bookbinding; cardboard modelling; fruit and vegetable preservation; *gur* (jaggery) making; bee-keeping; poultry farming; sericulture; scientific hobbies, e.g. soap making, tooth powder making, candle making, ink making, chalk making, etc.; calico printing; mat weaving and basket making; leatherwork; papier mâché; home craft; home nursing; any other craft suited to the locality. The Punjab basic training schools also impart training in creative and decorative art to all their student teachers. Training in art forms a part of the curriculum of basic training schools in most states. In Madras, the main crafts are (a) gardening, agriculture and kitchen work, and (b) spinning and weaving. Besides these, the basic training schools may offer any one or more of the following activities as subsidiary crafts: metalwork; paper making; bee-keeping; poultry farming; leatherwork; mat weaving; needlework; tailoring; fibre and grass work; basketry and string work; cardboard work and simple binding; soap making. The selection of the optional crafts by different training schools would be made with a view to supplying the needs of the community using locally available materials. It would also be necessary to see whether these subsidiary crafts could be carried on in the schools to which the trainees would go after their training.

There is one option in this list, namely, tailoring, which I consider should be compulsory. If the entire process of clothes production is to be learnt by basic school teachers and children, we should not stop at the weaving of cloth, but should carry the process to its logical conclusion—making clothes. Very few basic schools or training schools, however, have introduced tailoring as a part of the compulsory course in clothes production. Even in the *Revised Syllabus for the Training of Teachers* prepared by the Hindustani Talimi Sangh, the craft prescribed is cloth-making, not clothes-making.

One very good feature of the Hindustani Talimi Sangh Syllabus in the two main basic crafts, namely, agriculture, and *vasthra-vidya* (cloth-making), is that two useful suggestions have been offered for correlated learning in connexion with the various activities. Here are the suggestions for correlated knowledge in connexion with cotton growing:

A diary of the operations carried out in the field, giving the number and frequency of ploughings, inter-cultivating, manurings, weedings, should be kept. Along with this a growth-record of the cotton crop should be maintained giving the date of sowing, date of germination, date of flowering, date of first picking, etc.

Data regarding growth and effect of manuring and the performance of better seeds may also be noted. Maintenance of a weather record (maximum and minimum temperature and rainfall) is also essential.

Botanical. The cotton plant. Its distinctive characteristics. The parts of the plant and their function, the parts of the flower. Pollination and fertilization in cotton plants, development of fruit, parts of a fruit. The three main branches of the cotton family. Important members of each branch. How to distinguish them. Their distribution in India and the world. Improvement of cotton varieties. How effected? Factors which determine the selection of a variety for a particular locality and particular purpose.

Agricultural. Soil, moisture, temperature and other factors. Effects of different manure on yield and fibre quality. Different methods of cultivation. Pests.

Geography. Cotton growing areas of the world. Optimum weather and climatic conditions for cotton.

Social Studies. The history of cotton; the role played by cotton in the history of mankind. Economic factors in the production and consumption of cotton. Cotton trade and cotton markets of India and the world today and in the past. The relation between cotton markets and the economic and social life of the people in the different countries where it is grown, both today and in the past; the reasons for the changes if any.

Mathematics. Percentage of germination. Seed ratio per acre. Yield per acre, cost of production calculations connected with the cultivation of cotton.

Similar suggestions for correlation are also embodied in the syllabus in use in Travancore-Cochin.

Every basic school is expected to have at least two acres of land for gardening with facilities for irrigation. For this reason, every basic teacher is expected to acquire skill in elementary gardening and to be able to plan his work to maximum advantage. All training schools, therefore, make provision for training in gardening and, if possible, for agriculture: generally, one acre of land for every 20 trainees is considered essential. In Madras, and in some other states, if a training school is not able to provide these facilities immediately, it is required to organize work on private farms. Every trainee is expected to put in about 300 hours of work a year

on the farm. Farm industries like bee-keeping, poultry farming, pisciculture, paddy husking, flour grinding, *gur* making and oil pressing are encouraged as activities connected with agriculture.

An important feature of all basic training schools is work in the community kitchen, which is not restricted to the preparation of food. Every prospective basic teacher is expected to acquire the necessary skills in the different processes from the gathering of food materials to the serving of food as well as a scientific understanding of them. The training school kitchen is organized as a laboratory for the study of dietetics, so that the student teachers may learn to organize school kitchens that will provide nutritious and balanced foods to their pupils and so educate them in their turn. The Hindustani Talimi Sangh has developed an excellent syllabus in food preparation[1] under the three broad heads: the organization of kitchen work; the collection, storing and preservation of foodstuffs and fuel; and the preparation of meals which includes also serving, organization of work and maintenance of records. In the state of Travancore-Cochin, they have a still more detailed syllabus in kitchen work.

Recreational and Cultural Activities

Basic training institutions in Madras provide in their curricula for various recreational and cultural activities. The most important of these are: music; dance and dramatics; art, including decoration; celebration of festivals; excursions. Such provision for cultural and recreational activities is a common feature of all basic training institutions. The Hindustani Talimi Sangh syllabus lists the following under cultural and recreational programmes: appreciation of literature; music, dance and drama; drawing, painting and the decorative arts; recreative games; picnics, camps and excursions. The following reasons are given in this syllabus for the provision in a teacher's training course of at least some of these activities.

1. The ideal of the full and harmonious development of the faculties of the individual cannot be approached if his aesthetic powers remain dormant. The creation and appreciation of beauty in some form is therefore an integral part of an all-round education.
2. Recreation, relaxation, refreshment, enjoyment, are essential to good health of body, mind and soul. The provision of leisure and its wise use are both necessary. Students must be helped to discover resources within themselves for the use of leisure.
3. The teacher needs to develop good taste and a sound judgment of what is fitting in various circumstances. The activities in this

[1] See Appendix IX.

section provide the material by which the taste and judgment may be trained.

Because student teachers differ in their gifts and tastes it is suggested that they should be encouraged to concentrate on those activities which appeal most to them. But it is expected that all will understand the part which these arts play in the education of children and the reason why they are included in the school programme.

Health and Hygiene

There is a much greater emphasis in basic schools and training schools than in the traditional schools on healthy and hygienic living. It is realized that 'so long as the general standard of living in India remains at its present low level, the general ignorance of matters relating to health and hygiene so great, and the available medical service so inadequate to the need, health education must have a much larger place in the preparation of a village teacher than may be necessary in many other countries. The teacher will not only have to be responsible for the cleanliness and hygienic condition of the school, but he will also be expected to advise the villagers on general matters of health and sanitation. He should be able to give first aid in sickness or accident until professional medical help can be secured, to use simple home remedies, and above all to set an example of healthy, clean living for the whole community by his own personal and family life'.[1] The Hindustani Talimi Sangh syllabus in clean and healthy living includes:

1. Practice of a clean and healthy mode of life, together with study of the principles upon which the practices are based:
   (a) Personal cleanliness.
   (b) A regular healthy daily routine.
   (c) A clean and healthy environment.
2. Rural hygiene and sanitation.
3. Elementary anatomy and physiology.
4. Elementary principles of nutrition.
5. Common ailments, their causes, prevention and simple home treatment.
6. First aid in accident and emergency.
7. The health programme of a basic school.

The Madras syllabus in health and hygiene has three important additional items. These are: social and moral hygiene; physical training (implicit in craft and community work); and organized physical education. The Tranvancore-Cochin course for basic teachers con-

[1] *Revised Syllabus for the Training of Teachers*, Hindustani Talimi Sangh, Sevagram, 1952, p. 23.

tains three distinct syllabuses, one in cleanliness, another in health education, and a third in physical education. The syllabus in cleanliness includes the philosophy of cleanliness, which is to be discussed under the following heads:

1. The meaning of cleanliness. Cleanliness as destruction of dirt and creation of beauty.
2. Cleanliness as a basis of healthy life both for the individual and the community.
3. The social and moral aspects of cleanliness:
   (a) Cleanliness as a social obligation.
   (b) Cleanliness as a moral obligation.
   (c) The close correlation of external and inner cleanliness.
4. The intellectual aspects of cleanliness: development of alertness and sensitiveness of mind as a result of training in cleanliness; habits of planning, co-operative work as a result of group work in cleanliness.
5. Cleanliness as an instrument of knowledge in general science, social studies, hygiene and health, language and literature, mathematics and art.

Professional Training

The professional training in basic education generally includes the following courses:

1. The principles of basic education, including the principles of curriculum construction.
2. Educational psychology and child study.
3. School organization and administration.
4. Methods of teaching, general and special.
5. Practice teaching and practical assignments.

The precise arrangements and organization of the courses may vary slightly from state to state, but the general framework and the broad contents remain practically the same, though in Bombay they have been drawn up as a composite course called 'Training in Teaching Craft' and divided into two one-year parts. Any variation likely to be found is in the fifth course, namely, practice teaching and practical assignments. In some institutions more varied work is attempted while in some, like the training school at Sevagram, the programme of work with the school children is developed in stages on the following lines:

1. Observation of school programmes including class work, excursions, school meals, health programmes, free play, etc.
2. Participation in school activities with the co-operation of the class teachers.

3. Actual work with the children:
   (a) Previous discussion between the class teacher and the training school staff.
   (b) Planning.
   (c) Actual teaching.
   (d) Recording of work.
   (e) Assignment of work and discussions between the class teacher and the training school staff after work with the children.
4. Preparation of educational material for children.

An elaborate schedule of work to be done by student teachers in their practising schools is the one used in the Madras basic training schools.[1] The work has been planned under the following 10 heads:

1. Observation of four or five selected children under various situations (at home, in the classroom, in the playground, in the company of friends and relatives) and recording the details of their progress during the course of two years.
2. Observation of a class or group of children to note their reaction to the environment and to different types of activities.
3. Observation of defective and backward children.
4. Observation of individual differences in pupils of any one class.
5. Study of children who shirk work or do not concentrate.
6. Daily organizational and extra-curricular duties for a definite period during the course.
7. Study of the organizational set-up of the school.
8. Measurement of intelligence and assessment of achievement.
9. Observing complete units of the work of selected teachers and noting special features.
10. Practice teaching.

Student teachers in some basic training schools are also required during the period of their training to continue their study of some of the academic school subjects. The Bombay syllabus prescribes courses in language, mathematics, history, geography, science, and Hindi. Twenty-two periods per week are allotted for such study. In Madras, student teachers have to spend five periods per week on the study of the regional language, and the senior basic school teachers in the study of English and methods of teaching English. In most states, however, English is not taught in the basic schools, or basic training schools. Since Hindi has become the federal language, it is being introduced in training schools in regions where it is not the mother-tongue. In Delhi and Ajmer, subject matter courses are prescribed in general science and in the social studies. In Bihar, under the head, 'cultural activities', student teachers are required to study (a) the literature in the language of the locality; (b) Indian history with a

[1] For details, see Appendix X.

background of world history, with special reference to the social and cultural development of man; (c) Indian geography with a background of world geography, with special reference to economic geography; (d) the different religions of the world; and (e) current events.

The Training School at Work

Life in a basic training institution is a busy one, as a few time-tables in operation in training schools in different parts of the country will show. The following is that observed at the Basic Training Centre at Loni in the state of Bombay:

5.00 to 6.15 a.m.	Rising and morning duties.
6.15 to 7.30 a.m.	Sweeping and cleaning; preparing and serving breakfast.
7.30 to 7.40 a.m.	School meeting. Prayer and giving out of day's programme.
7.40 to 8.20 a.m.	Sacrificial spinning.
8.20 to 9.50 a.m.	Theory and academic studies.
9.50 to 10.50 a.m.	Craft work (practical).
10.50 to 2.00 p.m.	Meal, rest and study.
2.00 to 3.15 p.m.	Practice teaching lessons.
3.15 to 4.45 p.m.	Craft work (practical work).
5.45 to 6.15 p.m.	Games.
6.15 to 8.00 p.m.	Meal and personal activities.
8.00 to 8.30 p.m.	Evening prayers. Radio news and discussion of current topics.
8.30 to 10.00 p.m.	Study. Social education classes. Preparation of variety entertainment programmes and dramas. Hindi classes.

The following is the routine observed at the Basic Training Centre at Bikram in Bihar:

4.00 a.m.	Rising bell.
5.00 to 5.15 a.m.	Community prayers.
5.15 to 5.45 a.m.	*Safai* (sweeping and cleaning).
5.45 to 6.30 a.m.	Agriculture.
6.30 to 7.30 a.m.	Breakfast.
7.30 to 10.30 a.m.	Craft.
10.30 to 11.30 a.m.	Midday meal.
11.30 to 2.30 p.m.	Interval.
2.30 to 3.00 p.m.	Mass spinning.

3.00 to 3.15 p.m.	Reading of *Chetana* (manuscript news-sheet).
3.15 to 5.00 p.m.	Theoretical classes.
5.30 to 6.00 p.m.	Games.
7.00 to 7.15 p.m.	Prayers.
7.30 to 8.00 p.m.	Dinner.
8.00 to 10.00 p.m.	Independent study.

The daily programme suggested for the basic training schools in Madras is:

5.00 a.m.	Rising.
5.00 to 6.00 a.m.	Personal time.
6.00 to 6.15 a.m.	Devotional assembly.
6.15 to 7.15 a.m.	Community duties (in batches).
7.15 to 8.30 a.m.	Food and preparation.
8.30 to 11.30 a.m.	School session.
11.30 to 1.30 p.m.	Meal and free time.
1.30 to 4.30 p.m.	School session.
4.30 to 5.30 p.m.	Physical education (by teams).
5.30 to 6.30 p.m.	Free time except for those working in the kitchen.
6.30 to 6.45 p.m.	Devotional assembly.
6.45 to 8.00 p.m.	Meal and free time.
8.00 to 9.00 p.m.	Study.

Examinations

There is little uniformity in the system of examination and assessment of the work of student teachers in basic training schools in different states of the Indian Union. In some states, such as Bihar, there is no regular examination at the end of the course; but detailed regular records of individual as well as collective work in the craft or crafts and of teaching practice are maintained by the student teachers, regularly checked and assessed by the staff, and finally assessed by a Special Board of Inspectors. Those declared successful by the board are granted certificates; the others are retained for a further period in order to achieve the required standard.

In other states, such as Madras, there is a public examination in the subjects for theoretical study and an internal examination, conducted by the headmaster and staff, for the practical work. This is the scheme for examination followed in Madras:

Group A (for internal examination): hygiene and health (including physical education); garden and kitchen work; spinning and

weaving; community training and cultural activities; work in the practising school.

Group B (for external examination): language and literature; educational psychology (and child study); principles of basic education; methods of teaching; school administration.

In still other states, such as Delhi and Ajmer, the candidates are examined by the Education Department, and the final test is given in theory, arts and crafts and practice of teaching. In arts and crafts, 30 marks out of 150 are reserved for the year's work, and in practice of teaching 50 per cent of the marks.

The maintenance of regular records of work by the student teachers and the staff helps to develop in them an aptitude for accurate recording of results when working independently in their schools. Basic education requires teachers to maintain regular and systematic records of their work and accurate accounts of their incomes and expenses. The importance of recording in their training cannot therefore be over-estimated. In many institutions, student teachers prepare complete records of their work at the end of every month on the basis of their daily, weekly and fortnightly records, and quarterly and yearly records are prepared from these.

Administration

The vast majority of basic training institutions are run by the state departments of education. There are few private basic schools because parents who are prepared to pay for their children's education prefer to send them to the traditional schools. This is largely true even in rural areas, where a large percentage of parents wish their children to find employment in government service or in commercial or industrial concerns.

Provision of Higher Training for Basic and Post-basic Teachers

In some states, basic education has reached the post-basic stage, i.e. the stage beyond Grade VIII in which instruction is carried on at an advanced level for another four years. For such institutions, as for the basic training schools, there is need for better qualified teachers. This has resulted in a higher form of training for which the minimum academic qualification is a university degree. Such higher training is now given in a few places like the Jamia Millia at Delhi and the Sarvodaya Mahavidyalaya (or the Bihar Community College) at Nrisingnagar near Turki in Bihar. The Sarvodaya Mahavidyalaya at present comprises the following sections: a teachers' training section, a university section, and a social workers' training section.

The teachers' training section offers the following courses:

1. For university graduates—a two years' course. The two years include one year at the training college and one year of supervised work in basic, high, and training schools or as a sub-inspector of schools with two primary or basic schools under his personal guidance for experiment and research.
2. Refresher course of fifteen days to three months for instructors of basic training schools, teachers of high schools (post-basic) and selected headmasters and teachers of basic schools.
3. Teachers and inspecting officers of traditional high and middle schools—short courses of six weeks to six months in co-operative community living, craft practice, supervised self-study, correlated teaching, organization of employment through *khadi* production and allied village industries and social and recreative activities in extension centres in the neighbouring villages.
4. For a few selected basic trained teachers, educational administrative officers and students of child study—psychological research work and scientific experimental investigations in connexion with basic and high school education and application of statistics to these. The courses will vary from three months to two years depending on the nature of investigation.

The following are the centres round which the activities of the teachers' training course are organized:

Community life. Preparation and serving of food, sanitary services and social and recreative activities including adult education. Every student has to reside in the college compound so that the community programme and cultural activities may be effectively organized.

Craft, theory and practice. The Mahavidyalaya provides facilities for the teaching of the following:

Main crafts: agriculture including animal husbandry; spinning and weaving (textile); cardboard modelling, woodwork and metalwork (or technology).

Subsidiary crafts: House building; spinning (but not for those taking spinning and weaving as the main craft); vegetable gardening (but not for those taking agriculture as the main craft); bee-keeping; oil pressing; fisheries; fine leatherwork; pottery; cane work; toy making, domestic crafts particularly for women; *rassi* (rope) making or other local crafts.

Of the above, the candidate under training has to take one as his main craft and two as the subsidiary crafts.

The educational programme will include a study of the following:

1. Aims and principles of education with special reference to the principles and objectives of basic education.
2. Applied child psychology, educational psychology (elementary and advanced), and elementary social psychology.

3. History of education with history of basic education in detail (ancient Indian educational traditions in comparison with classical Greeks, some information about the educational reformers from Locke onwards indicating the evolution of educational thoughts).
4. Sociology.
5. School organization—with particular reference to craft and environment-centred schools following varied courses.
6. Elementary physiology, health education and hygiene.
7. Methodology, general and special.
8. Hindi for those who had not studied it for their graduate course. For Hindi-speaking trainees, any of the regional languages of Bihar recognized as media of instruction in primary or basic schools.
9. Practical teaching.

Experiments and research in the teachers' training section may be carried on under the following heads:

1. Child development:
   (a) The child and his environment, physical development, mental development, and factors influencing these.
   (b) Child health and nutrition.
   (c) Physiology.
   (d) Child care and nursing.
   (e) A study of nursery and infant school education. The study of the child development courses will be based largely on first-hand knowledge gained from observations of children at home, in the neighbourhood and under school conditions.
2. Psychological research work and various experimental investigations:
   (a) Construction of intelligence tests and their standardization. These tests should be both verbal and non-verbal.
   (b) Construction of achievement tests for the pupils of basic schools at different stages of their school.
   (c) Scientific investigations regarding the selection of children for different basic types of higher education at the age of 11 plus and 14 plus.
   (d) Scientific and psychological investigations of the curricula followed in basic and post-basic high schools.
   (e) Investigations into job analysis and vocational guidance, etc.
3. Statistics applied to education and psychology.

Teacher Training for Pre-basic Schools

One other significant development in the field of basic education has been a steady increase in the number of pre-basic schools, and the need for pre-basic training institutions. A few such institutions have now come into existence. A notable one is the one at Sevagram. Gandhiji defined *Nai Talim* or the new education as 'Education for life'. 'The field of *Nai Talim*,' he said, 'extends from the moment a child is conceived in the mother's womb to the moment of death'. But the definition 'Education for Life' goes deeper. It not only refers to the span but also the content and depth of the educational process. It means that education is both for and through life. Education covers the entire field of life, 'there is nothing in life, however small, which is not the concern of education'. 'Education, thus conceived, becomes co-extensive with life, with cleanliness and health, with citizenship, work and worship, play and recreation—all this, not as separate subjects of the syllabus but as interrelated processes for the development of a harmonious and balanced life'.[1]

The foundations for this education have to be laid in the earliest years of childhood. In fact, the foundations to be sound must go deeper; this new education must begin with adult education, i.e. the education of the parents and the community. According to these new principles, it must continue through the pre-natal period as the education (including physical care) of the expectant mother, through the period of infancy both as education of the parents in wise parenthood, in the homes, and in medical care of the body and instruction in child care, through centres of child welfare or child clinics. As soon as the child is independent of the mother, and can walk to the pre-basic school, the educational process is continued in the homes, in the village and in the pre-basic school, training the child, the parents and the community, until the child of seven passes on to the next stage as the citizen of the basic school. 'You should bear in mind,' said Gandhiji, 'that this primary education would include the elementary principles of sanitation, hygiene, nutrition, of doing their own work and helping their parents at home. This is the full meaning of pre-basic education, or education for children under seven according to *Nai Talim*. This educational programme includes the education of the entire village in happy, healthy and clean community life; education of the parents in wise parenthood, and of the children from the time of preparation before their birth until they reach the seventh year, when they enter the next period of their development.'[2]

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[1] *Syllabus for the Training of Pre-Basic Teachers*, Hindustani Talimi Sangh, Sevagram, Wardha, 1945, pp. 1–2.

[2] ibid., p. 2.

The worker of pre-basic education has, therefore, to be trained not only as a teacher of children from 2½ to 7—or 6 in states where basic education begins at this age—but also as a teacher or a worker for the whole community of which the child forms a part. The course has to be framed so as to cover the entire field of village or community life with special emphasis on the development of children under 7, and the training school should be conveniently situated in the centre of the community which it has to serve. As at the basic and post-basic stage, the technique of training must be work-centred, the theoretical studies evolving out of the actual problems encountered in the work. The following syllabus planned by the Hindustani Talimi Sangh constitutes a programme of work and studies, divided into sections as under:

1. Organization of community life.
2. Social training.
3. Child study.
4. History of child education.
5. Basic principles and objectives of pre-basic education.
6. Content of pre-basic education.
7. Organization of work.
8. Cleanliness and health.
9. Nature study (including gardening and care of pets).
10. Language and literature including speech training.
11. Music and rhythm.
12. Art and crafts. Creative activities and crafts suitable to children under 7.

Basic education is thus developing and progressing slowly but surely, and with it the training of teachers for basic schools. It is a happy sign that the training is being made more and more practical and less and less theoretical, because it is being keenly and increasingly felt that whatever is taught in the training school has to be actually practised in the basic schools. Full discipline and harmonious community living have to be developed in the training schools if they are to be maintained in the basic schools. Social service programmes must be actually planned and executed in the training schools if they are to be actually planned and executed by teachers in their schools. The training schools must try to bring their students into close touch with the real problems of basic education to help them to realize through practical experience as student teachers what they will have to face as basic school teachers. It is heartening to find that the basic training schools, on the whole, have realized the high aims of basic education, and that they are helping the students that come to them to see how and how far these aims can be achieved.

APPENDIXES

I. SYLLABUS IN ELEMENTARY AGRICULTURE AND GARDENING FOR USE IN PRIMARY TRAINING INSTITUTIONS IN MADHYA PRADESH

GENERAL PRINCIPLES OF AGRICULTURE AND GARDENING

The soil. Formation of the soil through the disintegration of rocks. Soils formed *in situ* and transported soils. Organic and inorganic constituents of soils. Kinds of soils as based on the soil constituents, e.g. sandy, clayey, etc. Water-holding capacities of soil.

Tillage. Objects. Pulverisation and aeration, killing of weeds and insects. Methods. Ploughing, harrowing, clod crushing, etc., with country or improved implements.

Manuring. Necessity of manuring. The chief elements of manures, e.g. nitrogen, phosphoric acid and potash, and their functions. Kinds of manures and their rate of application. Bulky manures, e.g. farmyard manure, compost, green-manure, etc., which can be had in villages. Concentrated manures, e.g. oil cakes, fish, bonemeal and chemical manures, etc., which require to be brought from cities. Way of preparing farmyard manure.

Crops. Kinds of field and garden crops of the two seasons. Relations of soils and climate to crops. Plant propagation by seeds. Qualities of good seed, ways of testing seed, rate per acre (with respect to the principal crops of the locality), method of sowing and preparation of seedlings for transplantation by the use of the stem. Planting, cutting, layering, grafting and budding wherever possible. Harvesting of crops. Cutting, threshing, winnowing, drying and storage of products. Selection of seeds, tubers for sowing and ways of storing them.

Weeding. Objects, means and time.

Irrigation. Objects, kinds, e.g. natural and artificial. Source of water, e.g. tanks, canals, wells, rivers, etc. Ways of lifting water, e.g. by the Persian wheel and pumps worked by different powers.

Methods of watering the crop, e.g. the channel bed and the ring system. Inter-culture, its methods and objects.
Drainage. Necessity. Ways of draining plots and soils.
Laying out a farm and a garden. Farm dividing according to contour of land, and according to the crops. Making roads to facilitate work.
Garden fencing and plants useful for it. Water channels. Allotment of space for nursery flowers, vegetables and fruits, manure, pit, etc. Ways of planting flower plants, vegetable and fruit trees.

PLANT LIFE

The root. Parts, e.g. the tap root, branches, fibres and the cap. Kinds of roots, e.g. tap and fibrous. Functions. Absorption of plant food and fixation to soil and strong food material.
The stem, parts, e.g. trunk, branches, leaves and buds externally and bark, weed and pith internally. Kinds such as overground and underground. Functions such as support to the superstructure, transmission of sap and storage of food material.
The leaf. Functions, e.g. carbon assimilation, respiration and transpiration.
The flower. Chief parts and their functions. Cross-pollination and value. Identification of the common annuals and perennials.
The fruit. Common fruit trees.
The seed.

INSECT PESTS

Life history of insects in general. Beneficial and harmful insects. Prevention and remedial measures for insects attacking the local crops.

CARE OF ANIMALS

Feeding and watering. Food should be adequate for work and should be given at proper intervals and should be clean and fresh as should water. Grazing grounds should be sufficiently large and should provide good grass. Preparation of silage.
Housing. The sheds should be clean and well ventilated and wide enough to allow proper movement. Yards for calves.
Vermin. Animals should be kept free from ticks and lice, by proper grooming, dusting and washing.

Diseases. Common diseases, e.g. foot-and-mouth, rinderpest, tympanitis, diarrhoea, etc., and their treatment at home.

Breeding. For the kinds of animals required, e.g. for hard work, milk, flesh, etc. Poultry. General principles of breeding. Selection and breeding. Cross-breeding and its value. Stud bulls. Castration of animals not required for breeding purposes.

Society for the Prevention of Cruelty to Animals; The Blue Cross Society.

In normal schools which are unable to maintain animals, local arrangements should be made for the necessary experience to be gained.

Standard

1. The student must acquire by actual practice throughout the course:
   (a) Practical experience in raising one field crop per session.
   (b) Practical experience in the cost of cultivation.
   (c) Practical experience in raising seedlings, pruning plants, budding, trimming borders and hedges.
   (d) Practical experience in the care of pets and a working knowledge of SPCA and Blue Cross Society.
2. His theoretical knowledge should show that he has acquired the elementary principles of agriculture and gardening to the extent of being able to take an intelligent interest in the main occupation of the parents whose children he teaches in the rural areas.
3. His work throughout the year should show a growth of interest and spontaneous activity. The marks for this work should be awarded strictly on this basis.
4. He must show interest in pamphlets and simple literature on improved methods published by the Agriculture Department and should read a vernacular agriculture magazine.

II. SYLLABUS IN SPINNING AND WEAVING FOR USE IN PRIMARY TRAINING INSTITUTIONS IN MADHYA BHARAT

The object of the course is to master the skill and the scientific knowledge of the different processes in the craft from the growing of cotton to finished cloth and to enable the teacher to teach children up to Class V.

COTTON GROWING

The spinning teacher in consultation with the agriculture teacher will arrange for the actual cultivation of cotton by the trainees.

PICKING OF COTTON

Proper time for picking; correct method of picking. Cleaning of cotton: the correct method of cleaning. Standard of attainment: one pound of well picked cotton per hour at the end of the course.

GINNING

By the hand gin: necessity of drying cotton before ginning; the mechanism involved; disposal of seeds for cattle food. Standard of attainment at the end of the course: 30 *tolas* of soft cotton in half an hour and 20 *tolas* of hard cotton in half an hour.

By rod and plank: drying of cotton before ginning. Measurement and mechanism involved in this apparatus; a comparative study with the hand gin. Standard of attainment: 3½ *tolas* of cotton in half an hour.

COMBING (TUNAYI)

Its measuring, need for combing cotton.
Three types of combing cotton:

1. *Dhanush Tunayi* (combing with the small hand bow): Care in handling lint; the different parts of the instrument; its measurements. The mechanism involved in its working; where to strike the bow; the places where the cotton should touch the string; testing the tension of the string by its sound during vibration; preparation of the bow.
2. and 3. New combing: The pupil teachers should have practice in combing both by the fingers and by the bamboo knife. Comparative study of 'fine combing and new combing'.

MAKING OF SLIVERS

Correct method of preparing slivers. Requisites of a good sliver; length, weight and form. Correct packing and careful stocking of slivers. Equipment used: the board, the handle and the rod.

SPINNING

On the Takli

Spinning: with both hands. Use of the cardboard and ash or its substitutes. Joining and picking. Correct method of winding yarn on the *takli*. Correct method of winding yarn on the winder. Correct method of preparing of hanks. The following methods are suggested for spinning on the *takli*.

1. Posture: sitting. Twisting on the ground and winding in the air.
2. Posture: sitting. Twisting in the air and winding in the air.
3. Posture: sitting. Twisting on the ground and winding on the ground.
4. Posture: sitting. Twisting in the air and winding on the ground.
5. Posture: standing. Twisting in the air and winding in the air.

The above process should be practised with the thumb and the forefinger and with the thumb and the middle finger separately.

On the Charkha

Spinning by the local *kisan* or *Yarvada charkhas*. Fitting the *charkha* for use; precaution to be taken for the smooth running of the *Charkhas*: oiling, fitting of the bigger belt, and relation of the clockwise twist of the yarn and the direction of the big wheel. The fitting of the *bitak*. How to hold the knob, the main wheel and the sliver. Proper posture, how to keep the disc of the spindle in the position by winding yarn behind and before it. Method of finding whether the twist is correct; correct method of winding yarn on the spindle; charging the spindle; winding yarn on the *charkha* winder.

The different parts of the *charkha*: their measurement, forms and uses; the *bitak*, the main wheel, the knob, the circumference and the groove of the wheel (V-shaped and U-shaped); the small wheel; its axis (*khodi*); its repair; the *modia*, and its parts. Bigger and smaller belts and their preparation; preparation of oil for *charkha*, and its importance in the education programme.

ELEMENTARY WEAVING

All the processes involved in making the following articles should be taught: *Nadi*, tape and wick; *Niwar* (broad tape); *Tatpatti* (foot rug); Towel.

III. SYLLABUS IN WOODWORK FOR USE IN PRIMARY TRAINING INSTITUTIONS IN MADHYA BHARAT

The course is designed to give a general grounding and to develop skill in all the fundamental processes of hand woodwork. The equipment should be kept as simple and indigenous as possible. It is therefore suggested that pupils should work on planks used by carpenters in villages and not on work benches and use simple tools used by village carpenters.

It is necessary to practice with the universal tool, the adze, which is used by village carpenters and which is not generally found in the equipment supplied by Western countries. This tool is particularly useful in modelling articles from round timber logs where sawn timber in different sizes is not available.

It is strongly recommended that formal exercises in woodwork such as sawing, planing or marking joints should as far as possible be avoided, and that the necessary practice should be given in making the articles, though the pupil should be allowed to choose the articles he works on.

THE SYLLABUS

1. Acquaintance with the following tools: Adze, chisels, plane, foot-rule, square, small mallet, saw, hammer, screwdriver, nail set, pliers, hand drill, clamp, compass, rabbit-plane, fretsaw set, saw set, files, grindstone (flat), marking gauge, axe.

   Description and identification of tools which the pupils use; their use and care.

   Canting for preventing damage to tools and injury to users.
2. Drawing to scale of several articles; to bisect a given line; to draw an angle equal to a given one; to draw a perpendicular; to bisect an angle; to draw parallel lines; curve lines, rectangles, polygons; to prepare simple sketches; elevation; to draw free-hand sketches of tools.
3. Practice with adze. Roughing out from round or waste stick. Simple exercises in sawing, planing, cleaning, chiselling, groov-ing and simple joining.
4. Joints: Halving joints, lap halving and cross halving. Housed joints and simple mortise and tenon joints. To fix up hangers, small tables, signboards, bookshelf. Book rack, stool, picture frame, wooden tray, pointer, inkstand.
5. Repairs of broken furniture.

6. Cane-work: Caning stools, chairs, and preparing other simple articles.
7. Polishing: Ingredients used in polish; varieties of polish.
8. Ingredients used for lacquer; its preparation and colouring. Methods of filling the pores.

IV. SYLLABUS IN RURAL HYGIENE AND SANITATION FOR USE IN PRIMARY TRAINING SCHOOLS IN WEST BENGAL

1. Personal hygiene, cleanliness of the body, baths and clothing, care of the eyes, the teeth, hair, nails and skin, common skin diseases and their remedies; extermination of lice and vermin; proper posture for sitting; standing and walking; need for exercise, sunlight and fresh air; work, fatigue and recreation; the amount of rest and sleep required by children and persons of different ages.
2. Dwelling houses and school buildings—selection of site; arrangement for light and ventilation; good drainage; location of kitchens; privies and cow-sheds; disposal of filth and sewage; rural latrines.
3. Water—characteristics of good drinking water; how water is polluted; how to keep the source of water free from pollution; means of purification of drinking water.
4. Food—its necessity for (a) repairing wastage and (b) ensuring growth and development; different kinds of food; the value of vitamins; milk as food; regularity in taking meals; dangers of adulterated food; the construction of a suitable dietary; evil effects of the use of intoxicating drugs.
5. Common diseases and measures for their prevention—colds and catarrhs, malaria, *kala-azar*, enteric fever, cholera, smallpox, dysentery, epidemic dropsy and tuberculosis; precautions necessary in the case of infectious and contagious diseases and of epidemics.
6. Simple accidents and their treatment—the use of antiseptics and disinfectants—bites of wasps, scorpions, snakes, dogs, etc., remedial measures.

V. SYLLABUS IN RURAL ECONOMICS AND WELFARE FOR USE IN PRIMARY TRAINING SCHOOLS IN WEST BENGAL

Desire for better living; prevention of wastage, e.g. wastage of labour, time, money, etc.
Subsidiary earning, e.g. from poultry, dairy, goats, cattle breeding and small home industries.
Village factions; litigation; extravagance in social and religious functions; rural debts, other causes of rural poverty.
The farm—capital—irrigation and drainage; water-hyacinth; manure; good seed; strong cattle; better implements; common sense and hard work; co-operative farming; attention to common diseases and pests; selection of crops, co-operative marketing.
Problem of food—cheap and nutritive food materials and their cooking; village pasture and the problem of cattle food.
Better house-building and home-planning—building materials; utilization of waste water; kitchen sullage; village roads; village drainage; village playground and library; community gatherings; their organization and scope; the function of primary school teachers regarding these—adult education—men and women; moral tone in village society and in its civic activities; rural recreations.
The purpose and function of the co-operative movement.
Available agencies for rural welfare work and their activities—government officers and others.

VI. FORM OF VILLAGE SURVEY TO BE CONDUCTED BY STUDENT TEACHERS OF NORMAL SCHOOLS IN MADHYA PRADESH

GENERAL DESCRIPTION OF THE VILLAGE

1. Situation of the village.
2. Area of the village site.
3. Number of houses with:
   (a) Thatched roofs.
   (b) Tiled or iron roofs.
4. Average size of house plot.
5. Average number of rooms in a house.

6. How many houses have windows?
7. Is there roof space for ventilation?
8. Drawing a rough plan of the village area.
9. Drawing a ground plan of an ordinary house.

POPULATION

1. Total population.
2. Castes or communities represented in the village with the number of each.
3. Number of families in the village.
4. Average number of members in a family.
5. Does the joint family system obtain?
6. Number in the village of:
   (a) Men.
   (b) Women.
   (c) Boys under 14.
   (d) Girls under 14.
7. Number of children who have died in each family.
8. Emigration from the village:
   (a) Number of men who have left.
   (b) Number of women who have left.
   (c) Places where they have gone.
   (d) Occupation of each.
   (e) Reasons for going.
   (f) Do they return at intervals?
   (g) Do they send letters?
   (h) Do they send money?

SOCIAL CUSTOMS

1. What is the average age of marriage for (a) boys; (b) girls?
2. Are there any unmarried adults in the village?
3. Have any widows remarried?
4. Where are brides and bridegrooms obtained?
5. Are outcastes allowed to enter the caste village?
6. Are they allowed to enter board or municipal schools?
7. Where do they get their drinking water from?
8. Do they eat (a) beef; (b) carrion?
9. Are there any villagers who have never visited the town?
10. How many have ridden on a train?
11. How many have been outside the province?
12. How much visiting is there with neighbouring villages?
13. Do any villagers go on pilgrimage? If so, how often and where?

14. What are the superstitions in the village?
15. How much are they influenced by city ways?
16. What amusements are there in the village?
    (a) Festivals.
    (b) Dramas.
    (c) Singing or recitation of poetry.
    (d) Games (singing or clapping).
    (e) Village sports, such as wrestling or cock fighting.
    (f) Children's games.
17. What can be done to provide wholesome amusements?

SANITATION AND HEALTH

1. How is drinking water obtained? From a well, a pond or tank or a river or channel?
2. Does any family boil its drinking water?
3. Do people bathe and wash clothing in the well, pond or river from which they get their drinking water?
4. Are there any latrines in the village?
5. How is the village scavenging done?
6. How often do the villagers bathe?
7. What are the diseases commonly prevalent in the village, and what are the steps taken for their prevention and cure?
8. Infant mortality in the village.
9. What help is given to women at the time of confinement?
10. What can the normal school class do to improve the sanitary habits and general health of the village?

VII. PROGRAMME OF COMMUNITY TRAINING AND CULTURAL ACTIVITIES TO BE FOLLOWED IN THE BASIC TRAINING SCHOOLS IN MADRAS

DEMOCRATIC LIVING

The social objectives of *Nai Talim* and the ideal of citizenship inherent in it. The organization of the Training School Community on principles of democracy; the responsibility of every member in the election of and co-operation with the executive; freedom and responsibility to be harmonized. Building up a tradition. Periodical flag hoisting and sentiment of patriotism, study of the flag.

Sanitation; care of buildings and compound; preparation of food, kitchen, gardening, social service and other departments of community work to be organized under the squad system and fitted into daily routine, making the most economic use of time with due emphasis on the educational aspect.

SOCIAL SERVICE

(Each section of training school may select one village for this purpose.) A study of the village community, so as to understand the physical, economic, social and cultural environment of the school child. (The questionnaire of the All-India Village Industries Association may be used for guidance.) Preparation and implementation, with the co-operation of the villagers, of a long-range plan, for the improvement of the village on the following points:

Occupations. History of these occupations and their development, economic problems, raw materials, tools, marketing, etc., how to improve. Reclamation of waste lands and improvement of irrigation facilities.

Sanitation and health. The layout of the village—improvements, construction of urinals, latrines, bathrooms, protection of water-sources, control of epidemics.

Social life. Education in democratic and co-operative way of living; organization of village *panchayat* and its service departments including vigilance; settlement of disputes by arbitration; inter-communal friendliness; youth leagues; antisocial elements and how to deal with them.

Cultural life—Organization of fairs and festivals; *bhajan mandals;* physical culture groups; spinning clubs; literary associations; dramatics; folk dances, folklore, etc., with a view to acquaintance with the cultural heritage of our country.

Adult education. Chief objectives; social efficiency and complete living; liquidation of illiteracy—village as a community centre.

CELEBRATION OF FESTIVALS

Celebration of national, social, cultural, seasonal and religious festivals. Their reorientation and systematization on a rational basis.

SCHOOL JOURNEYS

Long and expensive journeys to places of cultural, scientific or educational interest, short inexpensive journeys to observe natural

phenomena, local occupations, etc. The latter should be undertaken as frequently as possible and may quite often be combined with other outdoor activities such as social service campaigns.

MUSIC

Theory

Swara, Sruti, Sthayi, Arohana, Avarohana, Avarta, Kala, Aksharakala. The *Sapta Swaras*—the 12 notes of *Sthayi*, methods of reckoning *Adi* and *Rupaka Talas*. An elementary knowledge of the common *ragas. Todi, Mayamalavagoula, Bhairavi, Anandhabhairavi, Kambhoji, Khamas, Mohana, Sankarabharana, Bilahari* and *Kalyani.*

Lives of Purandara Das, Tyagaraja, Arunachala Kavirayar, Gopalakrishna Bharati, Meerabai, Kabir, Nanak and Thukaram.

Practical

Exercise in *Swaras:* Four *Gitas*, two in *Malhari raga* and one each in *Kalyani* and *Mohana ragas*. The *Bilahari Swarajati (Rara venu)* and *Sankarabharana Adi Tala Varna (Sami Ninne)*. Ten songs in the *ragas* prescribed under theory—one in each *raga*. Six each of *Kummi Kolattam* and action songs. Five songs each from *Tevaram* and *Tiruppugazh* and five songs representative of the following types: *Divyanama Kirtanas;* ballads and national songs. Two musical dialogues. Folk songs and work songs.

Fixing a suitable pitch for the class, grouping of students according to muscial ability, group singing, choice of songs suitable for schools.

Organization of school choruses, orchestras and percussion bands, formation of music clubs, arranging musical evenings and periodical concerts by pupils, organization of daily prayer, musical demonstrations, inter-school competitions.

Preparation of work units and maintenance of records of work.

Note: (a) Team singing and group singing should be encouraged;
(b) folk songs and folk dances should be collected and adapted.

DANCE AND DRAMATICS

The available talents should be fully utilized in school entertainments, which should be arranged at frequent intervals and especially in connexion with the celebration of festivals.

DRAWING, PAINTING AND OTHER ARTS

Knowledge of colours. Primary colours, warm and cold tones, colour combinations, good and bad combinations, colour harmony, harmony of opposite colours, analogous harmony, colour mixing, earth and stone colour, chemical colour, necessity of binding medium in colours, Form—difference in forms—finding out forms from nature and utilizing them in painting and in making things for everyday use, form in classical art.

Painting. Original painting, copying from old masters, posters, decorative handwriting, composition, proportion, perspective nature-study, studying objects in original pictures, drawings of things used in daily life including craft equipment.

Decoration. Grammar of ornamental drawing, ornamental forms and designing—*Alpona* and *Rangoli*—collecting designs from old art, festival decoration, stage decoration, decorating with flowers, leaves, *alponas*, etc. Making flower garlands and ornaments, making a central place for festivals, designing for textile work, needlework, etc. Organizing and decorating exhibitions.

HINDUSTANI

The senior basic trained teachers are expected to teach Hindustani in Grades VI to VIII while the junior basic trained teachers are expected to have the following standard of knowledge in Hindustani.

Practical Working Knowledge

1. Ability to follow and take part in ordinary conversation on matters of daily life.
2. Ability to read books and magazines, articles such as those published by *Nai Talim* organizations on subjects of professional and technical interest to teachers.
3. Ability to write a simple letter on ordinary school business.

Senior Basic Grade. Standard of knowledge expected is equivalent to Rashtra Bhasha Examination standard of the Dakshina Bharat Hindi Prachar Sabha.

Teaching of Hindi. Place of Hindustani among the Indian languages, comparison with other languages, place of Hindustani in national education, mother-tongue as the medium, the practical and cultural importance of Hindi, its script and form. Oral teaching, pronunciation and accents, reading, grammar and its function, handwriting, composition.

VIII. SOCIAL EDUCATION PROGRAMME OF THE BASIC TRAINING SCHOOL AT BIKRAM IN BIHAR

1. Cleanliness, hygiene and medicine distribution.
   Streets, roads, drains, cleanliness of houses; windows for air and light, trench latrines, construction of urinals, treatment of men and cattle.
2. Education. Education of boys, girls and adult males and females; organization of night school.
3. Economic welfare. Utilization of every inch of land by growing vegetables; extension in cotton cultivation, propaganda for *charkhas* and hand looms; utilization of good seed and good breed of cattle.
   Plan of irrigation work. Wells, canals, etc.; introduction of pisciculture, sericulture, bee-keeping, etc. in the villages, co-operative economic planning, etc.; co-operative farming; co-operative business, etc.
4. Cultural programme and entertainments. Music, drama, *keertan*, story telling, weekly gatherings.
5. Organizational planning. *Gram panchayat*, or village cabinet (Health and Hygiene Minister, Education Minister, Cultural Minister, Agricultural Minister, Minister of Industries, Minister of Publicity, etc.,) *Mohalla* committee, club, library, common rooms, *Gram Raksha Dal* and *Akharas*.
6. Eradication of social evils. Child marriage, unjustified dowry system, too much expense in marriages, *sradhs*, drinking, etc.
7. Publicity. Literature, papers, lantern slides, display, notices, information in newspapers.

IX. THE HINDUSTANI TALIMI SANGH SYLLABUS IN FOOD PREPARATION

ORGANIZATION OF KITCHEN WORK

1. Situation of kitchen and store-room. Grinding and pounding places, places for preparing vegetables, preserving milk, and cooking, places for eating and cleaning vessels, well and drinking water supply. Space required for the various activities in relation to the size of the community.
2. The plan of the store-room. Shelves, *almirahs*, earthenware vessels, tins with lids. Best receptacles for storing various kinds of

foodstuffs. Proper classification of foodstuffs and labelling of receptacles. How to store fruit and vegetables. How to store milk and milk products. Proper ventilation and lighting of the store-room.

Arrangements for accurate weighing and measurement of foodstuffs. Measures used for various types of foods. Standard weights and measures.

3. Equipment.
   (a) Grinding and pounding stones, kinds of stone used. Types of *chakki* (mill stones) in common use. Adjustable and ball-bearing types. Their mechanism.
   (b) The oilpress. Different types of *ghanis* used locally and in different parts of India. Materials used in construction; mechanical principles involved; choice of type to be used for efficiency and cheapness.
   (c) Kitchen utensils for cooking and serving. Equipment needed for making and cooking bread *(roti);* what materials are used and why? Vessels for cooking and serving rice, pulses, vegetables, milk; size, shape and materials. Effect of light, air, water, fire and of the acid and alkaline properties of various foodstuffs on various metals and alloys. Need for tinning vessels. Daily care of vessels.
4. Plan of the kitchen. Position of fireplaces and ovens in relation to prevailing winds; number and kind needed in relation to the nature of work to be done and the type of fuel used. Conservation of heat so as to use the maximum fuel energy for cooking. Avoidance of smoke nuisance. Scientific construction of the hearth and chimney so as to meet these needs—*magan chula* and similar smokeless and fuel-saving ovens.

COLLECTION, STORING AND PRESERVING OF FOODSTUFFS AND FUEL

Fuels

When and how to collect or purchase; methods of storing.

Wood. Kinds of wood available locally—their good and bad qualities as fuel—woods for a quick, hot fire or for a slow, steady fire.

Charcoal and coal. Their origin and advantages. Difference between charcoal and coal.

Liquid and gaseous fuels. Oil stoves, spirit-stoves, primus stoves, etc.

Electricity as a fuel.

Choice among the available alternatives with regard to economy, heating capacity and effect on the food cooked and the utensils used.

Arrangements for dry fuel during the rainy season.

Grains, Cereals and Pulses

When and how to collect or purchase them. Methods of testing the quality before purchase. Effect of temperature, light and darkness, air, fungi, insects, vermin, etc., on stored food grains and pulses.

Proper storing of food grains as an urgent national problem—wastage through improper storing.

Indigenous and scientific methods of storing—comparative study of their suitability for Indian conditions. Methods in use in other countries with similar climatic conditions. Comparative merits of raw and parboiled rice.

Vegetables and Fruits

When and how to collect, purchase and store for immediate use. Testing quality before purchase.

Conditions under which preservation of vegetables and fruits becomes desirable—advantages and limitations of preservation.

Indigenous methods of drying, salting, picking, preserving and storing. Scientific methods—dehydration, refrigeration, canning. The principles underlying them. Experiments in their use in rural areas. Jams, jellies and chutneys.

Milk and Milk Products

Source of milk—the dairy—importance of a healthy herd. Testing the milk by lactometer, etc.

Boiling milk—why and how? How to prevent souring. Skimming milk—use of cream and of skimmed milk. How to make curds—action of bacteria. How to make buttermilk—its importance in diet. Preparation of *khowa* and cheese.

Use of local churn and cream-separator—principles on which they are based. Preparation of butter and *ghee*.

Principles of preparation of condensed milk, powdered milk and cheese.

Other Food Materials

Collection and proper storing of jaggery, sugar, oil and salt. How to test quality before purchase. Advantage of collecting oil seeds and pressing oil in a community *ghani*.

Collection and testing of eggs, fish and meat. Methods of preservation of eggs, fish and meat.

PREPARATION OF MEALS

Cleaning and grinding of cereals, pulses, etc.

Husking, pounding and grinding—correct methods, care and proper use of tools. Preservation of nutritive elements by hand-pounding and grinding.

Winnowing and separating, sieving, hand-cleaning, washing. Correct methods and instruments. Proper method of washing rice to preserve its nutritive values.

Cleaning of salt.

Proper disposal of all wastage and cleaning of the place. Educational value of the work.

Preparation of Vegetables

Implements needed for cutting, etc. How to clean and store them and keep them in order.

Preparation of vegetables for eating uncooked as raw salads etc. Use of potassium permanganate, salt, or some other disinfectant in washing them. Importance of raw food in health. Preparation of raw chutneys.

Parts of each common vegetable: which are to be used, which discarded. Proper methods of cutting each vegetable to obtain maximum food value. Whether to wash before or after cutting.

Action of air and metal on certain vegetables—how to counteract it.

Storing Water

Impurities found in water—suspended and dissolved, organic and inorganic.

Methods of purification—filtering, boiling, addition of chemicals—proper methods of disinfecting and storing.

Proper receptacles—comparative value of mud vessels and metallic vessels.

Lighting the Fire

Keeping dry tinder ready for starting—wood-shavings, dry grass, cotton waste, small twigs (use of kerosene to be discouraged).

The match-box—chemicals required—centres of the industry in India and abroad. History of the methods of obtaining fire. The scientific principles involved in each.

The need for air—scientific construction of the fireplace: use of bellows.

Cleanliness of the fireplace—use of ash.

Cooking

Suitable materials for cooking-vessels for various foodstuffs—earthenware and metals—iron, brass, bell-metal, copper, aluminium. Reaction to heat. Smearing with mud for protection from smoke.

Various methods of cooking—boiling, steaming, stewing, roasting, baking, braising, frying. The scientific principles involved. Methods suitable for various foods; methods which best preserve the nutritive value of foods, those which are most economical of time, materials and labour.

Methods of cooking common Indian dishes: (a) with maximum food value; (b) with minimum expenditure of fuel and energy; (c) with attention to taste and appearance.

Rice—correct method of cooking so as to avoid the wastage of throwing away rice water or gruel.

Pulses—different methods of cooking. Their importance in diet.

Covering vegetables during cooking. Why the use of soda should be discouraged.

Use of spices to the best advantage. Over-spicing to be avoided. Common and attractive sick-room dishes.

Serving

Arranging cooked food for serving. Cleanliness of vessels and of the clothes and persons of the servers.

The arrangement and cleanliness of the dining room before and after eating.

Order, art, and discretion in serving. Attention to individual needs. Serving as an educational process.

Disposal of food left over (a) for use at a subsequent meal; (b) as food for animals or as manure.

Washing of serving and eating utensils—cleansing agents used and economy of time and energy.

Organization and Recording

Distribution of work in various departments according to number of workers needed and physical ability.

Maintenance of accounts and records:

The stock book, receipts, issues, issue-register, cashbook, receipts and expenditure. Register for milk.

Register for attendants. Register for vegetables. Register for guests and extras.

Charts of daily, weekly and monthly diet, giving: (a) the different food-values; (b) the caloric value.

Daily records of kitchen work giving complete accounts of the work done, number of workers, time taken, material and equipments used and correlated knowledge.

X. WORK IN PRACTISING SCHOOLS PRESCRIBED FOR STUDENT TEACHERS IN THE MADRAS BASIC TRAINING SCHOOLS

Professional training is based mainly on the work in practising schools. The trainees in a section should be assigned this work at the same time and an adequate number of basic schools must be chosen for this. About six weeks a year should be provided for this work, one week for observation, one for apprenticeship and four weeks for practice teaching.

In working out the syllabus, the following objectives should be aimed at: Capacity in trainees to understand the special interests and abilities of individual children; Knowledge of the organizational points of the school; Capacity to assess and guide growing children; Ability to manage a class.

PRESCRIBED COURSE OF WORK

1. *Observation of four or five selected children* under various situations (at home, in the classroom, in the playground, in the company of friends and relatives) and recording the details of their progress during the course of two years.
   (a) Physical condition. Periodical weighing and measurement.
   (b) Behaviour at play, at work in class, with friends, with relatives, with strangers, with teachers; a study of motives, a biographical study.
   (c) Capacity to learn, educational progress in class.
   (d) Home environment, friends, community and other influences.
   (e) Visits to homes of the children and talks with parents regarding their progress, study and use of official records such as admission register, record sheets, cumulative records and progress reports to understand the children's background.
2. Observation of a class or group of children to note their reaction to environment and different types of activities; a record of their progress.
3. Observation of defective and backward children; record of any special talents or interests.

4. Observation of individual differences in pupils of any one class, classifying them and recording what causes these differences.
5. Observation of children who shirk work or do not concentrate; a study of their interests.
6. Daily duties for a definite period during the course:
   (a) To attend to the sanitation of the school building and compound.
   (b) To supervise games, school journeys, entertainments, etc.
   (c) To maintain school records and registers.
   (d) To conduct school assembly.
7. Study of the organizational set-up of the school:
   (a) Making of charts and other teaching appliances, preparation of children's literature.
   (b) Preparation of school statistics and study of school records and registers.
   (c) Preparation of time-tables and teaching notes.
   (d) Preparation of the layout and plan of a basic school with garden space, playground, sanitary facilities, school rooms, etc.
   (e) Preparation of indents.
8. Measurement of intelligence and assessment of achievement:
   (a) Preparation and administration of a few diagnostic tests of skill, knowledge, habits and attitudes; study of the results.
   (b) Achievement test; preparation and administration.
   (c) Classification or grouping of pupils for different purposes on the basis of tests.
9. Observing the work of selected teachers and noting special features.
10. Practice teaching:
   (a) Planning units of work.
   (b) Elaboration of particular units—working out correlation.
   (c) Preparation of necessary aids.
   (d) Handling of the class.
   (e) Discussion with trainees and with the supervising teacher.

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PART IV

RURAL TEACHER TRAINING IN MEXICO

by Isidro Castillo

CHAPTER I

GENERAL HISTORICAL OUTLINE

EVENTS LEADING UP TO THE PRESENT SITUATION

The whole of Mexico's new economic and social structure has its origin in a single historical fact—the Mexican Revolution.

In some quarters it is believed that Mexico has had numerous revolutions: in fact, it has had only one, which began in 1810 with the fight for political independence from Spain and has continued through the years, with varying fortunes, in the form of a struggle by the people for personal freedom and for material well-being with the peace it brings. Its spirit has survived up to the present day, as the most important constructive force in the life of Mexico.[1]

That its continuity has been unbroken can be seen from the similarity of the premises informing Morelos' programme of 1814 and that of the revolution of 1910, both of which start from the assumption that the basis of a sound national economy lies in the ownership of the land by the Indian and *mestizo* majority which tills it. Since the days of the conquest and the vice-royalty, there had been the widest inequalities of fortune in the country, with a comparatively small number of large proprietors monopolizing the land; and the social maladjustments arising from this circumstance had accumulated with the passage of time without a satisfactory remedy being found. The upshot was that the only solution possible was the tragic one of civil war. Antonio Caso has remarked that a less violent transition—a less dramatic national history, of slow evolution—would doubtless have been better. In theory, he is perfectly right, but things turned out otherwise and suppositions are therefore useless.

By the upheaval it caused in the whole life of Mexico, the revolution of 1910 brought into the light a situation which for centuries men had sought to conceal. For the people it was the emergence of the reality which, until then, they had not known; they had before them the picture of Mexico in its entirety, with all its power, with all its contradictions, great and small; and this new knowledge brought

[1] Ramón Beteta, *Pensamiento y Dinámica de la revolución Mexicana.*

with it the obligation to face the situation squarely without evasions.[1] This final crisis led the Mexicans, through self-examination, to an awareness of themselves as a people, and from this was born a new attitude, with an awakening of aesthetic feeling, an uprush of energy, increased confidence in their capacity for effort, and the determination to improve and enrich their lives. It also led them to appreciate the land they lived in; it turned their thought to the soil which supplied them with food, to the natural resources of the country and to the people living in it, to their past history and their futureprospects; in short, to all that is implied in theword 'Mexican'.

Once victory was achieved, a Constituent Congress drew up and promulgated a latter-day Magna Carta, the Constitution of 1917, which is still in force. Interpreting as it did the feelings, situation and problems of the nation, it proved the best social programme for the revolution. In compliance with its provisions, the free local government unit was introduced, and the democratic institutions which had been allowed to atrophy during the previous régime were restored. The government began to concern itself with the country's economic independence, recovering its rights over the subsoil and protecting its natural resources from the destructive exploitation they were undergoing at the hands of foreign interests. As, moreover, it was of vital importance to raise the standard of living of the masses, new labour legislation was put into force according industrial workers the rights previously denied them, such as an eight-hour day, a minimum wage, social security and the obligation on firms to maintain schools for the education of their employees' children. (These schools, known as 'Article 123 Schools' from the legal article making them obligatory, gave rise to a system which later developed considerably.) One of the rights conceded to workers was that of association, and a period of vigorous trade union development began.

The new Constitution brought about profound changes in the system of land tenure. The distribution of land had been the essential cause of the revolution. The peasantry's participation in the Civil War had shown clearly that this vast section of the population was the most downtrodden economically and politically. The fact was that, as a result of the spoliation they had suffered since the earliest days of Spanish colonization, notwithstanding excellent laws to prevent and remedy it, the village communities had lost the right to benefit by their own land, mountains, forests and water. In the 30 years preceding the revolution, therehad been a recrudescence of the evil with the dominance of the *haciendas*—a social and political rather than an economic institution, relying for viability not on

[1] Leopoldo Zea, *Conciencia y Posibilidad del Mexicano*, 1952.

sound agricultural practice but on the exploitation of human labour. Such were their power, prestige and size that it was as if the country were divided into a series of independent baronies.[1] The census of 1910, the year when the revolution began, showed a population, in round figures, of 14 million, with the land in the possession of a mere 834 great proprietors. The formerly land-owning peasants had become peons of the *haciendas*, to which they were bound at a starvation wage paid in kind. If we add to the foregoing the fact that Mexico is a country the cornerstone of whose economic and social life is agriculture—65 per cent of the total population is rural—the capital importance of the agrarian question will be clear.

The government proceeded to make the equality of rights prescribed by the new Constitution a fact. It made a beginning of splitting up *haciendas* and expropriating untilled land to provide or restore village common land and to create a class of small holders. However, despite the law and the initial steps taken by the government, feudalism subsisted. Estates remained undivided as villages either succumbed to fear of the landlord's threats, or lacked the initiative to organize themselves and claim their common lands under the legal conditions laid down by the Agrarian Code. What had not yet come to pass was the educational reform which was to give life to the ideals of the revolution.

THE RURAL SCHOOL

It is against this background that the vigorous and creative phenomenon of the Mexican rural school emerges. The first post-revolutionary governments soon realized the lack of schools in rural areas. While the country prided itself on its institutions of higher learning, where the select few who followed letters or the professions received their training, while the capital of the republic and the most important cities had a few primary schools attended by the children of the newly created middle class, rural education had been almost entirely neglected. As a result of this lack of schools and of the social and material backwardness of the villages, the census of 1910 showed 85 per cent of illiteracy among the rural population.

Initially, respect for the sovereignty of the states of the federation, and the wish to accord the fullest autonomy to the local government unit, led to the problem of education being left to the latter. After the reform of the Constitution and the establishment of the Department of Education, however, the federal government was at

[1] Frank Tannenbaum, 'La Lucha por la Paz y por el Pan', *Problemas Agricolas e Industriales de México.*

last able to extend its action to all the states, to help them and the local government units in the opening of new schools, and to promote the cultural integration of the country. The education movement began simply as a drive to found schools and to found them in large numbers; to bring education to the smallest hamlets and the remotest settlements of the country; and to reach the Indian, whose isolation made him undoubtedly in this respect the most neglected of all. (It should be borne in mind that the population is scattered over an area of more than 772,000 square miles; the distances, the mountainous terrains, the lack of communications are obstacles keeping thousands of small settlements—usually with not more than 500 inhabitants—out of touch with any neighbours.) Such was the zeal brought to this great task that three years later, in 1924, a network of rural schools began to take shape which already comprised 1,089 establishments, served by 1,146 teachers and guided by 48 inspector-instructors, members of cultural missions. A thousand or so travelling libraries, designed for rural needs, were also put into service.

In this initial period, attention was mainly centred on two problems: the provision of a common tongue for Indian elements (amounting to 16 per cent of the whole population and speaking over 50 different languages), and illiteracy among the *mestizo* population. Accordingly, the curriculum laid down for the rural schools was of the traditional type, consisting—alike for children, adolescents and adults of both sexes—of Spanish, reading, writing and arithmetic only. Unadmitted considerations of self-interest, rather than race prejudice, had split the country into three demographic categories—Indians, *mestizos* and whites. Hence what was needed was to use education to integrate all these elements in the neighbourly relationship of conscious Mexican citizenship. A faulty appreciation led to the view that language was the means to this end, whereas the problem was in fact a sociological one. But the rural teachers, living in, and forming part of, the villages, soon realized that it was fatuous to teach a more evolved language, or reading, writing and arithmetic, to people who felt no wish for the knowledge because they did not need it. For their social intercourse they needed no other language than their own; they had no paper to write on, no books to read and no accounts to keep. Teachers saw with despair that when children left school and returned to their homes, they were reabsorbed into their environment which, with its backwardness and lack of curiosity, quickly made them forget the little they had learnt. It leapt to the eye that quite other needs filled the peasant's mind and quite other—and urgent—tasks claimed his first attention; the alphabet and the rest had no immediate relevance to the grinding poverty and sickness from which

the people suffered. As Tannenbaum puts it, the rural teacher finally found that he was the sole representative of modern civilization in the peasant community. If the gulf between country and town was to be bridged, it was the teacher who would have to do it. He had to be an all-purpose minister to the rural community—bringing it law, medicine, hygiene, science, skills, tools and the elements of education—for it had nothing. Under the pressure of circumstances he had to undertake tasks in tune with the most immediate needs—e.g. vaccinating against smallpox, arranging for drinking water supplies for the village, showing the peasants how to set about getting grants of land from the government, combating alcoholism, organizing sports clubs and 1,000 other things. Activities of this kind grew enormously until a kind of programme took shape. The authorities and educators responsible for the administration of the country's educational policy appreciated the value of these developments, and by way of giving their sanction and keeping contact, they formulated the principles and programme of Mexican rural education as we know them today. The department had not in fact planned the rural school; it developed spontaneously, along lines determined and shaped by the social forces of the rural community. It might be said that in the creation of these schools the innate educative function of the community found expression.

In the earliest official schemes, the feature of the rural school on which most emphasis was laid was that which had distinguished it from its first beginnings—the social activities expected of it among the adult population. This element in the programme was greatly expanded and, as a result of its actual application by the teachers, it soon became apparent that the bonds between the community and the school were being drawn tighter. Moisés Saenz, Under-Secretary for Education and the main architect of the new system, on returning from one of his nation-wide tours of inspection, said in a lecture: 'With these rural schools, you can never tell where the school ends and the village begins nor where village life ends and school life begins, because the school has resumed its original office as a true social agency and is one with the community.' In conformity with the century-old practice in public education, schooling for children was made secular, free and compulsory. Each school adjusted its individual programme closely to the everyday needs and interests of the people; through the variety of its activities and the way in which it was organized—it had a garden, a sports ground, an open-air theatre, farm annexes, a glebe and workshops—it provided an idealized microcosm of the community itself; and with its non-scholastic activities it extended its influence to every department of the village's life, since the problems of the grown-ups also affected the children.

The social programme outlined by the department covered the basic concerns of daily life: work and rural economy, hygiene and health, the improvement and elevation of domestic life, more particularly as regards the raising of the status of women and the protection of children, participation in creative activities, good citizenship and so on. On the score of method, the only recommendation made was that, in whatever was done, the agreement of the peasants should be secured and their co-operation sought and organized. When the stage of actual execution was reached, practical activities followed logically from the programme, as the following examples show: building of the school and the teacher's house; alignment and planning of the village; construction of better houses; road building; provision of supplies of drinking water and irrigation water by the sinking of wells or construction of small dams; reafforestation campaigns; adoption of agricultural machinery and improved methods; improvement of seed crops; preparation of fertilizers; fruit and vegetable growing; cow and pig keeping; bee and poultry keeping; introduction of small industries; simple craft training; organization of co-operatives; teaching smallholders how to market their own crops; improvement of diet; co-operative organization of dispensaries; vaccination against smallpox and inoculation against diphtheria and whooping cough; the training of a local resident in midwifery; training of women in the care of new-born babies, cutting and making clothes and better management of the family budget; artistic activities such as music and singing, painting, dancing, acting and popular arts, recreational activities such as sport and social functions, to bring the people out of their isolation; civic commemorations, acquaintance with the country's laws; reading and writing; readings in the library by the teacher; and wall newspapers. As far as learning Spanish was concerned, it was felt that this should be presented to the native peoples as being conducive to an improvement of their standard of living. The present outline does not of course cover all the activities undertaken by rural schools; for brevity's sake only the commonest are listed.

This practical education has deep roots stretching far back in Mexican history to the civilizing activities of the earliest missionaries from Flanders and Spain, who arrived in the sixteenth century to convert the natives. Significant and fruitful though their work was, it nevertheless remained an isolated effort. It was not until our own times that an educational system took root whose methods were not borrowed from the systems of other countries. The spirit of the rural school spread to other educational institutions and influenced many of our forms of cultural expression, as for instance, paintings by the great masters. The demand of the Mexican revolution was for

quick solutions and immediate results, and indisputably the most valuable of these was the rural school.

THE NEED FOR TEACHERS AND THE PROBLEM OF THEIR TRAINING

With rural schools being opened at the rate of over 1,000 a year, the problem of finding teachers to take charge of them arose at once. In the first place, the few teachers' training colleges established in the capital and other cities were not turning out teachers in the numbers required, and secondly they had taken no steps towards reforming their own system and were not in a position to train the kind of teacher which the new schools needed. Tannenbaum writes: 'The teachers trained in the city training colleges were not fitted for this type of task, could not perform it successfully and would have met with great difficulties, even supposing them to have been prepared to tolerate the boredom, isolation and poverty of a country village. Thus, teachers had to be found *ad hoc* and means devised for firing their enthusiasm and improving their qualifications after their appointment to their respective areas.' Accordingly, candidates were chosen for their suitability of character; the qualities demanded were keenness, energy and the spirit of service; preference was given to people from the same area in which they would have to serve, and youth was a further advantage. In the case of candidates fulfilling these conditions, only modest educational qualifications were stipulated.[1] As those recruited were humble people from the provinces, they were affected by the low level of culture prevailing in the country, and only in exceptional cases had their education progressed as far as the sixth year of primary schooling. However, the accepted view at the time was that what was needed for the rural schools was not geniuses but workers—that the ideal educator was not an academic teacher like Herbart but a civilizer and social missionary like Vasco de Quiroga. Once these *ad hoc* teachers were at work, the department turned its mind to ways of stimulating them in their efforts and improving their professional qualifications. For this purpose it had recourse to cultural missions.

The cultural missions were travelling teams of experts—an expert in teachers' training, an agricultural engineer, an expert in small industries, an instructor in physical education and a woman social welfare worker—which went on circuit round the country. In each region, the mission would assemble the local teachers (some 50 in number) in a selected village, for a month's course, of which the distinctive feature was the use of the selected village and its rural

[1] Cf. *El Esfuerzo Educacibo en México (1924–1948)*, Department of Education, Mexico.

school as experimental centres for the investigation of current problems and for the instruction of teachers in ways of solving those problems on the spot. Many members of the missions were untrained for this kind of work and had to re-educate themselves from actual experience of the practical needs they were required to meet.

The mission procedure was an emergency measure rendered unavoidable by the rapid opening of schools in considerable numbers. But one thing was certain: teachers had to be produced adequate in numbers and training to meet the requirements of the new system that was taking shape. This suggested the idea of setting up a specialized institution to train them.

ORIGIN AND DEVELOPMENT OF THE RURAL TEACHERS' TRAINING COLLEGES

The first rural teachers' training college was founded in Tacámbaro, state of Michoacán, in May 1922. A few months later, the department opened two more colleges and issued directives laying down the objects and organization of such establishments. The main points were: The object of the training colleges was to produce teachers for the schools of rural communities and Indian centres, to raise the standard of the teachers already in service, and to bring the progress that was taking place generally in the country to the centres of rural population in the zones where colleges were established. To fulfil these aims, training colleges would have to be located in the countryside, in the neighbourhood of a rural school which would be used for practical teaching instruction. The building to be taken (there being no time to build one specially) was to have rooms suitable for the office of the principal, four lecture rooms, a library and meeting rooms, two dormitories (for men and women), a dining room, a kitchen, a bathroom and a sports ground. The colleges would be provided with good agricultural land and irrigation facilities and with a nucleus of farmstock—poultry, sheep, pigs, cows, etc.—according to the nature of the environment and of local agriculture. They were also to have workshops and outbuildings for the introduction of a few village industries. The programme of instruction prescribed was very simple and covered two years, divided into four half-year terms. The subjects—besides the ordinary general ones (e.g. Spanish, arithmetic and geometry, social sciences, nature study, drawing, music and singing)—were professional ones (e.g. scientific child study, principles of education, study of country life, social organization of communities, organization and administration of schools, teaching methods), and practical subjects such as agriculture, trades and crafts, and

domestic economy (for women). The first term was designed to give students academic training equivalent to the last stage of primary education, because the majority of candidates had not reached this, the required, standard at school. As it was agreed from the beginning that teachers should be trained in the same surroundings in which they would have to work, it was judged essential that a primary condition for the acceptance of candidates should be local residence. Fundamentally, what was aimed at was to give candidates, in the setting in which they had lived and where they would go on living, a training as teachers which would make them better fitted for the guidance of their schools and for leadership in the improvement of their communities. The funds and staff set aside for the training colleges were not really large enough. Unfortunately, moreover, what was actually done did not conform to the intention of the plan. The colleges were located in, and their pupils selected from, semi-urban areas; facilities for carrying out practical work were lacking; and, as no one had experience in the organization of such colleges, they were initially no more than training institutes of the traditional type. Within a few years, however—by about 1926—the new establishments had acquired useful experience in regard to rural schools, and the Department of Education put it to use for the foundation of new institutions of the same kind.

In the same year, the stepping-up of the road building programme as a means of linking up the country and promoting its economic development had immediate results in an expansion of trade and industry. This led the government to concern itself very seriously with raising the output of agriculture and stock-farming, as these were the main activities of the people and the basis of the nation's wealth. Factors in the question of agricultural production were the large element of chance introduced by the industry's dependence on an insufficient rainfall (irrigation works being inadequate), the exhaustion of forest reserves, and the extensive wastage of arable land through salification, erosion and inundation; the lack of the credits which the peasants needed to work the parcels allotted to them; and the urgent need for replacing the antiquated farming methods in use by other better ones. The response found was the initiation of large-scale irrigation work, the establishment of agricultural credit and loan banks, and the drafting of a comprehensive training scheme for the peasantry. One item in this scheme was the foundation of the first six schools for the children of agricultural workers, known as central agricultural schools. These were planned not merely as educational centres but also as agricultural advisory institutions for their respective regions and as rural credit agencies to work in conjunction with the banks then being established. Splendid premises were erected for them, with farm

buildings, well-equipped workshops, flour mills and processing plants to manufacture a variety of milk products. They were also provided with ample land, pedigree stock and modern machinery. Their exceptional resources were in striking contrast to what was available to the local cultivators. The intention was gradually to extend the network of such schools, but the excessive cost of the initial units weakened and cramped the whole scheme. Failure was not long in coming. It was due to a number of reasons, of which the chief were firstly that the scale of operations was too great for the purpose in view: the training of 200 pupils (the maximum capacity of the schools), and secondly that the pupils themselves were badly selected and many secured admission who had no direct links with the land. The few pupils who returned to the land on graduation from these schools continued the traditional methods of their fathers, which the schools did not succeed in changing as what they demonstrated was too elaborate to be capable of local application. A few years later the central schools combined with the rural teachers' training colleges and from their union emerged a new institution, following a different plan, known as the regional rural school.

Since Mexico consists of a number of well-marked natural regions, differing in geography, economy and social structure, it was concluded that, to provide an effective impulse towards the elevation of the rural way of life, education must be adjusted to the physical and 'human' peculiarities of each region. The location of new schools was accordingly decided in the light of regional considerations. Each establishment consisted of two co-operating branches: an Institute of Social Research and another of Social Action. The purpose of the first of these was to study the milieu in which the school worked in order to supply it with data on which to base the conduct of its activities, while the second was to do active economic, social and cultural work in the surrounding villages. The original intention was that the new schools should train agricultural counsellors and rural teachers and also prepare personnel for the less-advanced technical posts needed in the countryside, such as rural organizer and domestic science adviser; for budgetary reasons, however, only the first two courses were introduced. Concurrently, what was called a complementary course was started, to cater for those pupils transferring to the regional school during the last stage of primary education. The initial post-primary course was essentially agricultural in nature and lasted for two years. It was complete in itself, since the student emerged from it with a usable qualification (it was the recognized training for agricultural counsellors); it was also the preparatory course for the rural teachers' course, lasting two more years, in which professional subjects proper were taken.

Under this scheme, not only was the rural teachers' diploma course increased to four years, without the former division into half-year terms, but profound changes were made in its organization, subjects and programme of studies. The object aimed at was to give teachers a more thorough grounding in agricultural subjects and ampler academic and technical training. In 1941 the regional rural schools were abolished in the interests of simplification, and separate teachers' training colleges and schools of practical agriculture (on a more modest scale than the central schools) were re-introduced in their stead. Following this separation, the teachers' training colleges ceased to be co-educational, as they had been since their introduction, and separate colleges were set aside for men and women respectively. A year later, the scheme of studies (six years in length) of the Mexico City Teachers' Training College was adopted; it is still in force. The justification advanced at the time for this step was that greater qualities and vision were required of a teacher intending to serve in a remote region than were needed for teaching in the capital, and that to be able to discharge his task the former must be given equivalent training to that afforded to the urban student. It was also claimed that making the two programmes of study the same length would unify teachers' training throughout the country. This was the first instance of encroachment by the urban teachers' training colleges on the province of their rural counterparts, by imposing on them a programme designed for urban conditions but unfitted for rural conditions. The results, as will be shown below, were not entirely happy, for the extent of the difference between town and country in Mexico is obvious at a glance. However, the spirit of the rural teachers' training colleges has proved so strong that they still survive with their original purpose unimpaired.

There has been a marked increase in the population of Mexico. The census of 1950 shows a total of over 25 millions against the 16½ millions of the 1930 census—an increase of nearly 10 millions in 20 years. The rural schools at work in 1950 were, in round numbers, 17,000. There are 21 rural teachers' training colleges with a student body of 4,872. The Department of Education's vote in 1950 was 312 million pesos, or 14.5 per cent of the total federal budget. The existing rural teachers' training colleges cost the National Treasury 10 million pesos per year.

The Department of Education directs and administers the rural teachers' training colleges through a Directorate-General of Teachers' Training with Divisions of General Administration, Rural Teachers' Training, Urban and Higher Teachers' Training, Pedagogic and Agronomic Studies, Accounts and Financial Management. The Directorate-General provides for the financial

needs of the rural training colleges, issues policy directives and ensures that the professional qualifications of the teaching staff are kept constantly up to date—for which purpose it uses a variety of means such as periodical visits to establishments, guides for teachers, seminars, short courses in the Higher Teachers' Training College and meetings of the staff councils which are organized in all colleges.

CHAPTER II

THE MEXE RURAL TEACHERS' TRAINING COLLEGE

LOCATION

The college is situated in the Mezquital Valley in the state of Hidalgo, one of the states nearest to Mexico City. The Mexico-Laredo highway crosses the state and passes through a number of villages including Actopán, the village nearest to the college, with which it is linked by a dirt road. The poor soil and the poverty and backwardness of the Otomi Indians forming the population of most of the valley are all too obvious. The villagers live by agriculture. As, however, the rainfall is very slight and the land is of low fertility, with an insignificant depth of top soil, and is also undulating and rough, is does not yield them a living. Use of the sewage from the Mexico City outfall enables good yields to be secured in some parts, and there are strips of fertile arable land and small ranches with improved stock in fair numbers. The entire area has been deforested. For lack of wood to build adobe houses with tiled roofs, the Indians live in nest-like huts of agave leaves. *Mestizos* are generally better off and able to buy wood and build houses in the ordinary way. A striking contrast is furnished by a former convent in Actopán which is a jewel of colonial architecture. Water storage for domestic use and for stock is in village ponds; the water from them is foul and malodorous, with algae, mud and filth. However, in this valley, the peasants drink little water, using pulque instead. The principal crops grown are maize and agave, which are the basis of the local diet.

In 1928 the Department of Education founded the first static cultural mission and located it in the Mezquital Valley. It was planned on lines different from those of the travelling missions, the basis of the scheme being co-operation between the Department of Education and other government departments, e.g. for agriculture, industry, health, etc. The idea was to tackle the people's various problems from every angle simultaneously. Owing to the size and complexity of the task, unsupported cultural action was indeed insufficient. The rural teachers' training college at Actopán, and the agricultural centre at El Mexe, were established in the valley; the

two later combined to form the regional rural school with premises in the building erected at El Mexe for the agricultural centre. When the regional school dissolved, the rural teachers' training college, which was one of its parts, stayed on in these premises.

The college is housed in a large and commodious building with extensive corridors. There are special rooms for offices (principal, secretariat, administration), adequate lecture rooms, a large assembly hall (also used as a theatre), a library, a dispensary, dormitories, a dining-hall, kitchens, a bakery, a laundry and ironing room, storehouses, baths and water closets. The teaching staff have houses apart from the main building. There are a sports field, swimming pool and gardens. In well fitted up outbuildings are the carpentry shop, the smithy, the sheet metal and agricultural machinery shop, a tannery, a dairy, cow houses with Swiss, Friesian and improved native cattle, poultry runs with New Hampshire stock, and the piggeries with good quality pigs. Adequate farm machinery has been provided—a lucerne dryer and baler, two tractors, seed drills and cultivators, modern ploughs, fumigators, etc. The building is situated in the middle of the establishment's 40 hectares of arable land. The soil is good, with irrigation from a canal which runs in the vicinity of the property. The principal crops are lucerne, wheat and maize. Parcels of land are set aside for kitchen-garden crops, orchards, tree nurseries, and agricultural experiment.

The radius of the college's sphere of influence is about four miles. Five settlements lie within this perimeter, Tepatepec with 4,000 inhabitants and San Juan Tepa, La Puerta, Colonia Lazaro Cardenas and Boca Mino with 300 each. Each village has its own rural mixed school, the Tepatepec school with a staff of eight and the remainder with one teacher each. These schools are used by the students at the teachers' training college for observation and practice.

BUDGET AND STAFF

The training college's annual budget is, in round figures, half a million Mexican pesos per year. The items of expenditure covered by this sum are the following: salaries of teaching, administrative and domestic staff, food (at the rate of 2.25 pesos per pupil per day), credits for farming operations, clothing, domestic equipment, machinery and miscellaneous.

The staff consists of the principal and his secretary, 12 members of the regular teaching staff, a physical education instructor, a teacher of music and singing, a doctor, a nurse and a ward-maid; an agricultural engineer and three agriculturists, two workshop foremen, one accountant, one store-keeper, a housekeeper in charge of

the domestic side, a baker and eight household servants. The members of the teaching staff come from the urban teachers' training colleges and the agricultural engineer from the National School of Agriculture. However, these establishments are not designed to produce the kind of instructors required for rural teachers' training colleges—agricultural engineers, for instance, are trained to make an estate pay but not to teach agriculture—and all the staff members concerned have received their specialized training 'on the job'. In this connexion, the professional history of the principal, Professor Rito Vargas Hernandez, is of some interest. He is himself a graduate of this college and after some years as a rural teacher returned to it as an agriculturist; he has also served in it as a workshop foreman. In other words, he has acquired most of his experience in this one establishment.

The instructors give their whole time to the college and, in addition to their own specific duties, participate in the rest of the college's activities and in its social life; they thus exercise a constant influence, both direct and indirect, on the conduct of students.

OBJECTS

While still retaining the objects prescribed for it at its foundation—of improving the professional qualifications of teachers already serving in rural schools and of promoting the all-round progress of its region—the rural teachers' training college has as its essential purpose the training and qualification of new teachers for the country districts. At the teacher's training congress held at Saltillo, Coah., in April 1944, this purpose was defined in the following terms: Teachers' training will be directed towards the production of a type of teacher able to grasp and appreciate the degree of culture prevailing in a rural community and to promote that community's economic, social and moral progress. The training received by the teacher must therefore provide him with an outline of human culture and an appreciation of present-day ideals, and give him an understanding of his country's history and culture and of contemporary problems. He must have enough knowledge of health and dietetics to advise on the preservation of health and physical vigour, and must be well informed on agricultural matters and the village industries suitable for the area in which he teaches. He must be given the necessary legal, historical and civic knowledge to guide his community in its relations with its own state and with the federal republic, building up in the people of his area the sense of Mexican unity and encouraging them to loyal fulfilment of their obligations as men and citizens. Obviously, too, he will be instructed in the subjects he is to

teach and in the techniques he will need for research, social work and teaching.

Clearly, the prime requisites, for the teaching profession are a sense of vocation and temperamental suitability. The assessment of factors of such complexity by means of tests is considered too difficult. Accordingly, only a few very simple tests of intelligence and knowledge are used, and reliance is mainly placed on other measures—on suitable selection of candidates and on the surroundings in which the student will work.

SELECTION OF CANDIDATES

The student body of the Mexe college is drawn from the state of Hidalgo and neighbouring areas of similar character, which are known as its recruitment zone. The college's conditions for the acceptance of candidates have been adjusted to those prescribed in the regulations in force throughout the system, which are briefly as follows: men candidates must be between 14 and 18 years of age and women candidates between 13 and 17. The fathers of candidates must be engaged in agriculture (as collective farmers on a partnership basis, as farm labourers or as smallholders), or failing that artisans engaged in small industries or rural teachers. Candidates must have completed the sixth year of rural primary education, be in sound health and free of any organic defects which would preclude their carrying out the duties of a teacher. Unqualified rural teachers already in appointments are eligible for admission as students conditionally on their having not less than two years' satisfactory service and being under 20 years of age. Care is taken to arrange that the student body shall always include representatives of all the ethnic groups of the region. Formerly, study programmes included instruction in Indian languages for *mestizos;* as a result, a proportion of students are now likely to speak them already.

Like every other teachers' training college in the country, the Mexe establishment has not been able to insist on candidates having completed the sixth year of primary education; the reason is that while the official primary school course is six years in length, the majority of schools provide teaching up to and including the fourth year only. This circumstance has forced the training college to accept candidates of the latter standard. To complete their primary education, students accordingly take the college's preliminary course of one year's duration. This course is a temporary expedient, which will be continued until such time as the rural schools within the recruitment zone are in a position to introduce the last cycle of education now missing. Students taking the preliminary course

(which follows the primary school syllabus) board at the training college and take part in its agricultural and workshop activities.

The Mexe college has a total of 350 students (male), all boarders.

ADMINISTRATION OF THE COLLEGE

The college has always been run on democratic lines, for which there are several reasons. In the first place, its activities are so diverse and require such a variety of knowledge and the mastery of so many special techniques, that it would be difficult to find an individual with all the required qualifications. Secondly, in an institution of this type, the most perfect co-ordination and integration are required, to enable the activities described earlier to proceed smoothly. Lastly, the view was taken that the efficient running and satisfactory progress of the college depended on the degree of interest and co-operation brought by all to its work. Accordingly, recourse was had to a democratic system under which questions can be examined and determined by the college as a whole, and its various sections—administrative staff, teaching staff, pupils and school employees—can express their views through their representatives. The powers and obligations of each group are laid down in special rules.

The college's governing body is the Technical Council, assisted by eight committees. The membership of the council is as follows: the principal, *ex-officio* chairman; two instructors representing the cycles of secondary studies and professional studies respectively; two students representing the cycles of secondary studies and professional studies respectively; a representative of the agricultural and craft branch; a representative of the rural teachers within the college's zone of influence; a representative of the administrative employees and a representative of the Parents' Association. The last-named body meets at the beginning of each school year and appoints its representative, who is usually selected from members living near the college.

The principal is responsible to the council for the running of the college and is the sole authority for the implementation of the council's decisions. Decisions of the council should only be taken when that body is in session with the principal in the chair; they should always be taken with a view to the best interests of the school community. The council's responsibilities are the preparation of annual budget estimates and of the college's annual work plan, consideration and implementation of measures for the better organization of work, and decisions on matters of discipline and internal organization.

At the beginning of the school year, the council draws up the work

plan, covering the activities to be undertaken in term by all the dependencies and services of the college, taking into account the school, agricultural and civic calendars in force in the region. In the case of this particular establishment, the type 'A' school calendar applies, which provides for a scholastic year of 10 consecutive months (6 February to 30 November) with two 10-day vacations—in May and September respectively—half-yearly tests in June and final examinations in November.

The members of the committees assisting the council in its work are exclusively students, but they have the advice of the teaching staff. There are eight such committees, dealing with the following aspects of the school's life: honour and justice (working on a prescribed disciplinary code), farm activities, accommodation and victualling, health and first-aid, sports, social action, civic calendar, and arts. The committees detail students for the activities within their respective provinces, moving them round so that every student has experience of all the activities.

The Students' Union, a long-standing body with autonomy in the conduct of its own affairs, is of great assistance in the fulfilment of these tasks. Its way of working is so effective that a Peruvian observer has commented in the following laudatory terms: 'I consider the organization of the work of great importance; each team of four or five students, appointed by the various committees, does its work with the utmost care and goodwill. Daily, there are teams for service in the dining-room, kitchen, dispensary, sickbay, principal's office, secretariat and the various departments. There are others to see that the trucks are in good running order, to help in farming and stock-tending tasks and in the workshops, for ploughing, for the sowing of lucerne, for work in the kitchen gardens, nursery gardens, on the irrigation system and in the piggeries, for feeding stock and poultry, for work in the carpenters' and blacksmiths' shops or in the bakery, to see to the general cleanliness of the establishment and to look after visitors.'[1]

A similar democratic internal organization characterizes all rural teachers' training colleges, being particularly marked in the San Marcos School in Zacatecas State.

SCHEME OF STUDIES

The length of the course for the rural teacher's diploma is six years, divided into two cycles—of secondary studies and professional studies respectively—each three years in length.

[1] Max H. Miñano Garcia, *La Educacion Rural en México*, Department of Education, Mexico, 1945.

Basically, the scheme of studies in this college comprises the same corpus of subjects and skills as is laid down for the teachers' training colleges in Mexico City, with the addition of a further series of subjects and activities specifically designed to equip teachers for service in rural areas. The details are as follows:

Cycle of Secondary Studies

This is equivalent to the course of studies in secondary schools.

First Year. First course in the following subjects: Mathematics (arithmetic and the elements of algebra and geometry), biology, geography (physical and world), world history, Spanish language and literature, a foreign language (English or French), civics, music, drawing, agriculture, animal husbandry, rural industries and crafts, physical education and pre-military training.[1]

Second Year. Second course in the following subjects: Mathematics (arithmetic, algebra and geometry), physics, biology, anthropogeography, world history, history of Mexico (initial course), Spanish language and literature, a foreign language (same choice), civics, music, drawing (mechanical), physical education and military training,[1] agriculture, animal husbandry, rural industries and crafts.

Third Year. Third course in the following subjects: Mathematics (algebra, geometry and elements of trigonometry), biology, chemistry, geography (of Mexico), history of Mexico (second course), Spanish language and literature, a foreign language (same choice), civics (with special reference to the political structure and major problems of Mexico), music, modelling, agriculture, animal husbandry, rural industries and crafts, physical education and military training.[1]

Cycle of Professional Studies

First Year. Subjects: Science of education (first course), teaching technique (first course), general psychology, political economy and the economic problems of Mexico, elements of mineralogy and geology, Greek and Latin etymology, world literature, logic, penmanship and its technique, music, drawing and plastic arts, agriculture, animal husbandry, rural industries and crafts, physical and military education.[1]

Second Year. Subjects: Science of education (second course), general history of education, paedology (experimental study of children),

[1] Translator's note: Item marked is variously *pre-military training* in Year I, Secondary Cycle and Years II and III, Professional Cycle; in the remaining years it is *military training*.

school hygiene, sociology, teaching technique (second course), cosmography, ethics, music, technique of audio-visual education, drawing and plastic arts, agriculture, animal husbandry, rural industries and crafts, physical and pre-military education.[1]

Third Year. Subjects: Science of education (third course), history of Mexican education, teaching technique (third course), educational psychology, school organization and administration, history of art and elements of aesthetics, music, drawing and plastic arts, dancing and acting, agriculture, animal husbandry, rural industries and crafts, physical and pre-military education.[1]

(In the training colleges for women teachers, domestic economy is given in all six years of the complete course.)

The teaching of the professional and of most of the academic subjects is divided among the 12 members of the teaching staff in the light of the their respective training and experience in those subjects. Anatomy, physiology and hygiene, in the biological group of sudies, plus school hygiene, are the responsibility of the establishment's doctor; the remaining biological subjects (botany and zoology) and mineralogy and geology are taught by the agricultural engineer in charge of the agricultural-industrial branch. There are specialist instructors for music and physical education. Instruction in agriculture and animal husbandry, small industries and rural crafts is given under the supervision of the agricultural engineer; he is assisted by the agriculturists and the two workshop foremen, who are experts in their own branches.

(In women's training colleges, the domestic economy classes are taken by the housekeeper.)

ORGANIZATION OF WORK

The weekly instructional periods for each subject, varying in number and length according to its nature and importance, are laid down in the time-table, which prescribes the details of the daily life of the house and the daily activities to be undertaken.

The pattern of a normal working day in the college is as follows:

Staff and students are up and ready to begin work at 6 a.m. Between then and 8 a.m., some groups attend classes while others do farm work. At 8.20 a.m. breakfast is served. From 9 a.m. to 1 p.m. there are classes again for some groups, while the remainder work in the fields, cow houses, poultry runs, and the manufacturing and service workshops. Lunch is at 1.30 p.m. At 3 p.m. the working par-

[1] Translator's note: Item marked is variously *pre-military training* in Year I, Secondary Cycle and Years II and III, Professional Cycle; in the remaining years it is *military training*.

ties and the classes of the morning change over and practical work and instruction continue until 7 p.m. Supper is served at 8 p.m. Between the end of supper and 10 p.m. students divide their time between the library, playing in the college orchestra (with typical local instruments), rehearsing plays or dances, listening to the wireless, parlour games, or social functions arranged by themselves. A few minutes after 10 p.m., the bell rings for silence and all students retire to bed. This time-table is followed from Monday morning until lunch-time on Saturday. On Saturday afternoons and Sundays, students play games, go on excursions or make whatever use they like of their free time. Detailing of students for morning or afternoon classroom work, as the case may be, is by complete classes; the change-over to the other 'shift' usually takes place weekly. At certain periods of the year, when the farm work requires it, the time-table is modified; sometimes the whole morning is set aside for class work and the afternoon for farming activities.

METHODS

The syllabuses are the same as in the urban training colleges; but it is necessary to make a selection, retaining only the essential elements and adapting and applying them as the college's objects and work organization require. This is achieved through the methods in use.

To afford teachers an opportunity of using their initiative, the authorities have left the college a degree of freedom to select the method deemed best in each specific case. The teachers do not reject the 'project' system as a means of adjusting the syllabuses to the college's needs, and it is used on occasion—as are other well-known methods, such as the Dalton Plan (with some modifications) and the Work Unit Method. However, observation of the way in which the college works suggests that, generally speaking, its methods and procedures do not follow any particular one of these recognized systems; they derive their effectiveness from the fact that they are dictated by the practical needs to be met. For certain parts of the academic work, the separate treatment of individual subjects is eschewed and replaced by a system of study assignments (logical combinations of mutually relevant research and practical items) of prescribed duration and executed, under supervision, to a work plan comprising library and laboratory research, seminars and formulation by instructor and students, in the lecture room, of conclusions which are then entered in what is known as an 'Exercise Cycle' book. Audio-visual aids to education are hardly used at all.

Wherever possible, science is taught from examples, or applied to

problems actually arising in the course of the college's operations; both exist in abundance in colleges of this kind. For instance, physics, chemistry and biology are given point by, and are applied in, the mechanical side of agriculture—building work undertaken, crafts and industries, soil analysis and the preparation of fertilizers, the prevention of sickness among the stock, the cultivation of crops, the extermination of plant pests, etc. Arithmetic and geometry are learnt and used in connexion with the college accounts, in surveying roads and levels, in the mensuration of parcels of land, in pattern-making for the sheet-metal shop, etc. Some items in the syllabus, such as the human biological group and school hygiene, provide the scientific background knowledge for the college's social work in the health field—e.g. child welfare, first-aid, campaigns against parasitosis, the improvement of diet, etc.

The subjects of a sociological nature are still tackled—as they always have been in this college—from an eminently practical angle. A few years ago Dr. Goodwin Watson visited several training colleges and reported that their most striking feature was the solid and comprehensive political and social education given to the students. Through this branch of his studies, the student gains a knowledge of questions pertaining to organized human society, gets his ideas on these matters into focus and acquires a tool for his future work. At the beginning of the school year the students of the sociology course, under the supervision of their teacher, carried out a survey in the five settlements of the zone of influence. This had two objects—firstly, the practical one of providing a basis for the programme of social action and secondly, that of training the students in the technique of research. Simple questionnaires were first drawn up, designed to determine the principal problems, their elements, correlations and attendant factors, the attitude of the populace with regard to them, and the resources available for their solution. On completion of the planning of the survey, the field work was carried out by a separate research team for each of the items in the questionnaires—environment and population; economic circumstances; home and family circumstances; social and recreational organization; and the cultural position.

For the professional subjects, such as the psychological group, the science of education, school organization and teaching technique, demonstrations and practice are provided in the schools in the recruitment zone, to enable students to check and apply their knowledge and acquire initial teaching experience under the supervision of their own instructors. This kind of work is done once a week. There are two further periods of intensive practice—one a week and the other a fortnight in length—in the course of the year. To keep a firm hold on students' attention, demonstrations follow a prescribed

plan: indication of the nature of the process or phenomenon to be observed, description of the way of inducing and identifying it, and the recording of the data obtained.

Teaching practice is also carried out under the supervision of the staff teacher in charge of the subject to be taught. Students must leave the training college certain of what they are going to do, of the effects their work will produce, and of the way in which results can be checked.

As we have seen, the pupils take a direct part in the college's productive activities. (In the women's training colleges, too, the students share in the simpler field work such as the sowing and harvesting of produce, the care of the garden and orchard and of hens, bees, rabbits, etc.) The agricultural engineer in charge of this branch, with the assistance of the committee concerned, organizes students in teams whose work he changes in rotation, so as to enable every student during his period of training to have the fullest experience of the whole range of these activities. Producers' co-operatives were organized but unfortunately, despite their great value, they did not prosper for lack of economic incentive for the students: neither they personally nor the college received the profits from such work, which went to the Department of Education. The net profit from the college's activities in the agricultural year 1950-51 was $118,000.

The farming, animal husbandry, crafts and manufacturing activities of the college should not be thought of as systematic courses following set syllabuses of agricultural, zootechnical or technological studies; nor, on the other hand, are they run exclusively for utilitarian ends with students picking up some knowledge incidentally. Admittedly the college confines its choice of activities to those economically viable in the region, and to prove their viability runs them on commercial lines. But the agricultural engineer also provides the background instruction in science appropriate to the practical farming carried on, being well aware that the main object is to turn out teachers fitted to improve the economy of a rural community; and this cannot be assessed in terms of money.

The agricultural engineer takes the various teams weekly for theoretical instruction. Subjects which have been covered include: soil fertility, causes and means of avoiding erosion, germination tests of seed, hybridization of maize, recording of thermopluviametric data, use of levels, mechanics and handling of agricultural machinery, systems of dairy stock feeding, inoculation against anthrax, haemorrhagic septicaemia, Texas fever, and foot and mouth disease, study of the diseases of stock, incubation of eggs, caponization of cockerels, inoculation against fowl cholera,

chickenpox, fowl diphtheria and Newcastle disease, poultry feeding and selection, pigs—their breeds, feeding, and diseases—inoculation of pigs against disease, construction of piggeries, etc. The college's practical farming plans largely replace a syllabus in prescribing the nature and order of theoretical studies. Each student keeps his own farming notebook in which he enters the lessons learnt in class. In the same book he notes particulars of the activities in which he is taking part. In the case of wheat-growing, for instance, he will note the area sown, the quantity of seed corn sown, cultivation carried out (with dates), vegetative cycle, production costs, etc.

(In the women's training colleges—e.g. at Palmira, Morelos—the purpose of the domestic economy class is to provide prospective teachers with the background knowledge they will require to tackle the problems of peasant women's education and of rural homes. The teaching given is practical. Students prepare simple dishes which form part of their own meals; they are taught the elements of dietetics; they learn to preserve fruits and vegetables; they draw up family budgets; cut and make clothes for adults and children; arrange and decorate a home; learn improved methods for household industries; make toys for children and draw up programmes for family recreation.)

Acting, dancing, games and sports, music and singing, besides their immediate recreational value for students at the college, serve the important purpose of equipping them with skills and resources which they can put to use in their social work in the zone of influence, and subsequently in the rural community to which they are posted. The principal forms of physical recreation are basketball and athletics. In 1951 an athletic meeting was held here in which all the rural teachers training colleges—men's and women's—in the country took part.

BOARDING ARRANGEMENTS

These are planned to be educational in themselves, so that instead of being irrelevant to the instructional side they are the most important medium in the educational battery for inducing the adoption by students of a better way of living, for inculcating cleanliness, sociability, and the habit of group recreation, and for ensuring that students participate in the various activities of the establishment just as children play their part in the life of the rural home. The students' victualling allowance already mentioned is treated as a subscription for shares in a co-operative canteen, and catering arrangements are run as a co-operative undertaking to which all users must contribute equally. The allowance per head

(pesos 2.25) is so limited that an adequate diet is only obtainable by the most scrupulous handling of the sums available. The expenditure of these to best advantage is the responsibility of a catering committee consisting of the principal, the accountant, the housekeeper, the instructor in mathematics (who keeps the books) and two students elected annually by their followers. This committee fixes the amount of the daily issues of milk, meat or fish, eggs, bread, vegetables, cereals, fruit and sweets; it checks the purity of the foodstuffs and the cleanliness observed in their preparation; it buys in bulk, preferably school produce (garden produce, eggs, maize, flour, milk, butter); it passes the accounts, and on the first day of each month reports to the student body, after dinner in the dining-room, on the operations of the previous month. Under the trained housekeeper, there are eight servants working in the kitchen, laundry and ironing room. Waiting at table in the dining-room is done by the team of students on duty, which also collects the provisions and assists in the heavier tasks. A typical day's menu is the following:

Breakfast: Coffee and milk, bread (from the school bakery), beans, fruit and tortillas.

Luncheon: Soup, a meat dish, green vegetables, beans, tortillas and a dessert.

Supper: Coffee and milk, bread, beans and tortillas.

The numbers regularly catered for are 350 students and the unmarried instructors. The remainder of the staff, with families in the locality, take meals in the dining-hall once a week, to maintain the sociable spirit which distinguishes these establishments.

MEDICAL SERVICE

The staff consists of one doctor, two nurses and a ward-maid. The following is a brief outline of what this service does: Half-yearly check of the state of health and physical development of students; vaccination of students, staff and the population in the zone of influence; daily sick visiting and consultations; supervision of the hygiene and cleanliness of the establishment; briefing the appropriate committee in particular, and students in general, for their health work and commitments in the zone of influence; advising on the diet within the school; operation of the travelling dispensary; investigation of endemic and epidemic diseases in the zone of influence; participation in the schools' welfare activities with particular reference to matters of hygiene and health education, combating local prejudices and countering the influence of wizards, sorcerers, 'healers' and quacks; negotiations with the health authorities for any assistance from the latter needed by the peasantry.

SOCIAL ACTION

Any educational institution in which the teaching is restricted to what can be given in class is in danger of missing its purpose. External activities, contact with real life and with the men and women who are the productive element and the natural educators of the community, will have the same beneficial effect on the institution as sun and fresh air have on the human organism. In connexion with teachers' training colleges, it should be borne in mind that the main feature of the rural school is its social work; if, therefore, the college which is training teachers for that kind of school is to attain its object, it cannot afford to omit this practical form of preparing the future teacher for his role as a social leader. Moreover it is through the students' outside contacts that the rural teachers' training college achieves one of its aims—promotion of an all-round improvement in its region.[1] The purpose behind the social activities pursued by the training colleges is identical with that underlying the action of the rural schools; it is to make the innate educational function of the community more conscious and better organized. To ensure the effectiveness of this branch of its work, the Mexe training college restricts it to the five settlements of its zone of influence, the work being planned and the immediate goals set in the light of the data collected by the students' survey. The work is carried out by the training college as a unit, with its various parts undertaking the specific tasks which their place in the organization of the whole dictates. The co-ordinating body in the community remains, however, its rural school, the training college's part being merely to reinforce what is a specific function of the former. The heads of activity conform to those of the survey. Some actual instances of work done by the rural training college in its zone of influence are described below:

The local peasants have been supplied with improved seed-wheat, maize and lucerne; they are lent the college's baler for the cutting and drying of fodder; they attend the preparation of fields for sowing and the disinfection of the seed-wheat when these operations are being carried out at the college, or the college agricultural engineer visits their own holdings; the college's nursery-garden provides seedling timber, fruit and ornamental trees; the college's stud-bulls are used to improve the local stock; the college will give pedigree cocks in exchange for barnyard hens (which it uses for eating), to improve poultry stocks; if they supply their own materials, peasants can make some of their tools and household articles in the college's workshops, which not only is in itself a service to them but

[1] *Educación Campesina y Fomento Rural*, Department of Education, Mexico, 1932.

also trains up more of the craftsmen so scarce in the countryside. The college tried for a long time to develop a drinking-water system for itself and for the five villages, but the expenses (purchase of piping and sinking of an artesian well) were beyond its means. As one of the college's social duties is to act as a link between the villages and government agencies, recourse was had to the state government, which provided the materials against the provision of the labour by the local inhabitants; and so drinking-water was secured. In health matters, besides the work mentioned earlier in connexion with the duties of the medical service, delousing of children and adults has been carried out (typhus causes much loss); though great difficulties have been experienced, some of the local people have been induced to build and use privies in their houses. Local co-operative dispensaries have been organized, for which a Red Cross organization recruited from the village girls is responsible. Some of the people have been induced to build adobe houses to replace their huts; this is frequently not done even by those who could afford it. In all five villages, homes are visited by the women teachers, the doctor and the nurses, to advise mothers on care that should be taken in childbirth and on the care of newborn babies, e.g. diet and cleanliness (or medical measures if necessary). All official celebrations listed in the civic calendar are suitably observed. The young people have been organized in sports clubs. There are dramatic clubs, to which boys and girls interested in the theatre belong. In earlier years an active campaign was maintained against illiteracy, but this branch of the work has decreased notably.

The college's social work is so varied that no definite time-table can be given. The students carry out short-term campaigns as the need arises (e.g. in the case of an epidemic), and also devote part of their periods of intensive teaching practice and in some instances their Sundays to these tasks. The permanent responsibility for this work lies with the rural teachers.

IMPROVEMENT OF THE PROFESSIONAL QUALIFICATIONS OF TEACHERS IN SERVICE

As regards the improvement of the professional qualifications of rural teachers actually in service (one of the objects of training colleges), the Mexe college works through its staff in the zone of influence. The methods employed are inspection of the work done by the schools, and meetings of the Centre for Educational Co-operation. The last named body works in the following way: the teachers of the five village schools meet every month in one of the communities in the zone, each of these being host in rotation twice a

year. In addition to the school teachers, the meeting is attended by the staff of the Mexe college and the students taking the cycle of professional studies. The school and the community constitute laboratories for demonstrating the centre's work, through the application of methods and programmes relating both to school life and to social work. At these meetings no papers are read, there is no division into teachers and taught, and no conclusions are formulated; actual questions arising in the course of the participants' daily work are ventilated and all present bring to their consideration their personal experience rather than what they have read or have been taught, with a view to finding a practical solution. The centre concerns itself with the solution of problems of school attendance, organization, syllabuses, method, progress and promotion tests, teaching material, adult education and the education of the community as an entity, school buildings and rural buildings in general. Improvement in the professional qualifications of the staff of the training college is achieved through the staff councils mentioned earlier. The department was moved to institute them by the consideration that the instructional problems of rural teachers' training colleges present peculiarities not found in other institutions, since they combine the problems specific to secondary education and professional training with those inherent in their agricultural work and in the residential nature of their establishments. Further, the members of their teaching staff have had diverse training, since there are no establishments which train staff teachers for the various specialized branches of rural teachers' training colleges.[1] The staff council meets once a month and is attended by all staff members carrying out teaching duties in the college. Problems relating to the college's work are examined, syllabuses are co-ordinated, official directives are explained, scientific subjects discussed and professional reading suggested.

GRADUATION

Professional examinations are held between 1 March and 31 July, within which period students who have completed the full course of studies may sit the qualifying examination. In each case the principal of the establishment appoints an examining board from among the teaching staff. The examination comprises three tests—practical, oral and written. The practical test takes the form of three days' work by the candidate in one of the rural schools in the zone of influence. He usually takes a minor subject which does

[1] *Escuelas Regionales Campesinas*, Department of Education, Mexico, 1940.

not affect the normal progress of the studies of the class assigned to him, and on the third day he gives the class a simple test to get an objective idea of the results of his work. For the written test the candidate may select at will any research subject or educational problem. The oral test is at once an amplification of the written test and a public affirmation of professional aims. The successful candidate must formally sign a declaration of which the essential terms are: 'I solemnly declare that I will conscientiously and honourably discharge my duties as a teacher, that I will uphold the repute of the profession and the good name of the college which grants me my diploma; and that I will not cease my endeavours to improve my professional knowledge of all kinds for the good of my country and my country's children.'

GRADUATED STUDENTS

All principals of rural teachers' training colleges are advised to keep a record of graduated students, showing the nature of their activities and how they carry them out in their appointments, with a view to securing pointers for their guidance in making the changes required in study programmes and taking the appropriate steps to make the training college's work more effective. Principals are also advised to keep in touch with their former pupils with a view to helping them in their work, if only in their early years in the profession, which is when they may most need help. In point of fact, however, no system has so far been adopted meeting these important aims, and once he leaves his college the student feels himself bound to it by sentimental ties only.

The students' societies of the 21 rural teachers' training colleges are associated in a federation, and this organization, through its governing body, undertakes to secure immediate employment in the primary schools of the Department of Education for the students graduating each year. Under the terms of the Teachers' Registration Law, graduates of the rural training colleges are entitled, on first appointment, to take charge of a rural school, or to serve as a teacher in a semi-urban school, with a monthly salary of 320.00 pesos. In 1951, 18 men graduated from the Mexe College and 228 from all the colleges in the network.

CONCLUSION

1. Concern for the education of the people has been the distinctive note in Mexico since 1910. As the majority of the population are country-dwellers, the rural school has become the most representative institution for popular education. Whereas, previously, education was essentially academic and formal, ever since their inception, the rural schools have emphasized its sociological function; taking the development of the rural society as their overriding object, they have concentrated on the study and solution of that society's vital practical problems. The rural teachers' training college is the institution best fitted to produce the teachers these schools need, because it trains its students in the same setting in which they will later have to work and with reference to the needs of rural life, inculcating an appropriate social outlook, the requisite scientific knowledge and an adequate working technique. There is no lack of testimonials and facts to prove the effectiveness of the rural training college. Latterly rural schools as a whole have tended to miss their mark by adopting syllabuses involving academic commitments beyond what the conditions of their work allow; but whenever the teacher in charge is a graduate of one of the rural training colleges it can be noted that the school preserves the true spirit and continues to serve the real purpose of the Mexican rural school.
2. As regards present numbers of rural teachers' training colleges and their output, the inadequacy of the system, in relation to the needs to be met, is obvious. Since they were begun, the rural training colleges have provided very nearly 9,000 teachers; but the rural primary education network has expanded over the same period until today it embraces a total of nearly 23,000 establishments. Up to 1944 the average number of students graduating from the rural training colleges each year was 560. By 1951 however, the number of graduations had fallen to 228, whereas the vast increase in the population and the growth of the rural primary school system, alike in number of schools and in range of classes, call for twice the number of training establishments and the recruitment of a minimum of 50,000 additional teachers.

This means that unless the rate of output of the rural training colleges rises we shall be forced to continue to use makeshift teaching staff and our ambition to have properly trained personnel in charge of rural education will remain unsatisfied for many years to come.

In view of the foregoing, there was founded in 1945 the Federal Teachers' Qualifying Institute, the purpose of which is to provide professional training and diplomas for serving teachers who have never taken, or who failed to complete, the course in a training college. The institute is in Mexico City and has a large instructional staff. It works through two organs—the Oral School, for the teachers working in the neighbourhood of the federal capital, and the Correspondence School for those serving in distant parts. Both branches follow the scheme of studies common to all teachers' training colleges. The Oral School works like an ordinary urban training college; classes take place on Friday afternoons, Saturdays and Sunday mornings. In the case of the Correspondence School, the procedure adopted initially was the normal one of exchanges of letters between teachers and taught. However, most rural teachers work in areas where communications are poor, and postal difficulties and delays subsequently led to the adoption of a modified system consisting in the provision of study guides and the printing of suitable texts for each subject. For these students, yearly oral courses of 50 days' duration are held in the provincial capitals or in other places not too distant from the areas where they work. The instructors of the Federal Qualifying Institute are distributed among the various oral courses in session, to teach direct the subject of which they are in charge and for which they have acted as directors of studies by correspondence during the academic year. The number of teachers on the institution's books as students has grown to 9,000 and it has already granted diplomas to a considerable number. So far no assessment of the results has been made which could throw light on such points as the following: Whether the professional training acquired has really warranted the grant of a formal teacher's diploma; whether this is the best organization for the institute and the best way for it to work; whether the training provided is relevant to what the teacher does in his own school, and if his work there has improved. Points to be taken into account are that a teacher's emoluments gradually increase in pace with his progress through the institute's course up to graduation, and that the grant of a diploma entitles him to the rights attaching to the Register of Teachers; we thus have a financial incentive and a further incentive in the shape of enhanced security of professional employment.

3. The fact that the work plans and syllabuses are the same for urban as for rural teacher's training colleges compels the latter to provide academic teaching which is unproductive and unjustified in their case owing to the difference in their objects and conditions of work. It should be acknowledged that there are no grounds whatever for regarding the rural teacher as being at a lower professional level than his urban counterpart, since the task of the former neither is nor should be thought simpler than that of the latter. It is also borne in mind that education changes with the conditions of life of the people, and that there are new facts of which cognizance must be taken in the training provided by the training college; examples are the increasing importance of international relations, the nation's economic and cultural evolution, new scientific discoveries, group-education techniques (audio-visual), the need to intensify adult education, anthropological research (of the utmost importance to the teacher), etc. Nevertheless, in the case of the rural teacher, however thorough the training it be desired to give him, the scope of that training can only be increased in pace with the evolution of the training colleges and with full regard for the ends the teacher is to serve.

A final point worth noting is the following: as the first cycle of studies in the rural teachers' training college is identical with the secondary education course standard throughout the country, withdrawals from the training college take place from the third year of studies onwards. The fact is that the sole object of a considerable percentage of pupils in entering a rural teachers' training college is to secure the enjoyment of its residential facilities while completing their secondary education. On reaching that point they leave and enter some other establishment. This explains the fact that in 1951 the total of students registering in the 21 rural training colleges was 4,872, whereas those graduating in the same year numbered no more than 228.

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